General

Department of Energy
Albuquerque Operations
Los Alamos Area Office
Los Alamos, New Mexico 87544

NOV 7 1989

Governor Garrey Carruthers
State Capitol
Santa Fe, New Mexico 87503

Dear Governor Carruthers:

Enclosed is a copy of the Los Alamos National Laboratory (Laboratory) Environmental Restoration/Waste Management Five Year Plan, Site Specific Plan. On behalf of the Laboratory and the Albuquerque Operations Office of the Department of Energy, I invite you to review this document and provide comments back to this office by November 24, 1989. Your participation is encouraged and every effort will be made to incorporate your comments in the final Plan to be issued in December, and in future updates thereto.

Please have your staff direct your comments and any questions to Paul Schumann of my staff at (505) 667-5288.

Sincerely,

James R. Anderson
Acting Area Manager

Enclosures

cc:
T. Gunderson, HSE-DO, MS K491
D. Lee, HSE-DO, MS K491
CRM (2), MS A120

LESH:PRS:0008

12268

AGREEMENT IN PRINCIPLE

The New Mexico Environmental Improvement Division ("NMEID"), the University of California ("University"), and the United States Department of Energy ("DOE"), in consideration of the mutual advantages of resolving without litigation all outstanding enforcement actions of NMEID against Los Alamos National Laboratory ("LANL"), and for other good and valuable consideration, hereby agree as follows:

1. They shall negotiate a consent agreement settling the enforcement actions related to the compliance orders currently docketed before the Director of NMEID as Docket Nos. 880801 and 880801-A, and all outstanding enforcement actions previously initiated by NMEID against LANL. The parties understand that any consent agreement will be submitted to the Hearing Officer for a recommendation to the Director, with the final approval authority resting with the Director. The parties understand, further, that in accordance with Hearing Rule 108.C.2, if the Director disapproves the consent agreement, it shall be null and void, and the case shall proceed as if there had been no consent agreement. The parties shall join in requesting the Hearing Officer to take no action on motions currently pending in the case, except with respect to the proposed consent agreement, until the Director has approved or disapproved such agreement.

2. Industrial wastewater point source discharges that are subject to regulation under section 402 of the Clean Water Act are exempt from regulation as solid waste under section 261.4(a)(1) of the New Mexico Hazardous Waste Management Regulations ("HWMR"), and, pursuant to section 1006(a) and (b) of the Resource Conservation and Recovery Act ("RCRA") and section 74-4-3.1 of the New Mexico Hazardous Waste Act, shall not be subject to regulation under the HWMR, regardless of whether such discharges are actually permitted under the Clean Water Act.

3. The "Plan for Identification and Characterization of Solid Waste Streams at Los Alamos National Laboratory," which was submitted by LANL to NMEID in August 1989, as modified and approved by NMEID, shall be a part of, and enforced under, the consent agreement to be entered by the parties pursuant hereto and shall be referenced in the Hazardous Waste Permit under RCRA only as a part of such settlement.

4. The University shall pay to NMEID the amount of $30,000.00 for administrative costs in connection with the consent agreement to be entered by the parties pursuant hereto.

Kirkland L. Jones
New Mexico Environmental
Improvement Division

James Anderson
United States Department
of Energy

Kenneth M. Hargis
University of California

1989

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LIBRARY COPY

LOS ALAMOS NATIONAL LABORATORY

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE YEAR PLAN SITE SPECIFIC PLAN

Prepared by:

Health, Safety, and Environment Division,
Los Alamos National Laboratory
for the
Department of Energy, Albuquerque Operations Office

October 1989 (DRAFT)

Document + 2 appendices
in magazine file
no cover letter

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

LOS ALAMOS NATIONAL LABORATORY

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT FIVE YEAR PLAN SITE SPECIFIC PLAN

Prepared by:

Health, Safety, and Environment Division,
Los Alamos National Laboratory
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Department of Energy, Albuquerque Operations Office

October 1989 (DRAFT)

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no cover letter

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 2
Corrective Activities

Water Releases
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

1.2.1.2 Los Alamos National Laboratory

There are no corrective activities identified by Los Alamos National Laboratory (LANL) for air emissions.

1.2.1.2.1 Activity Data Sheets

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1.3.1.2 Los Alamos National Laboratory

The EPA, Region 6 (Dallas, Texas), issues and enforces LANL's NPDES permit. New Mexico does not have implementation authority for NPDES. LANL has experienced a great deal of difficulty in attaining NPDES permit compliance partly because of aging, worn out treatment facilities and partly because of stringent permit limitations.

Spill control and reduction of possible pollutants in laboratory outfalls are important for addressing Clean Water Act requirements. LANL has the following projects to address these areas:

- 1.3.1.02.0001 NPDES Upgrades
- 1.3.1.02.0002 Spill Prevention Control and Countermeasures
- 1.3.1.02.0003 NPDES Projects
- 1.3.1.02.0004 Sanitary Wastewater Consolidation System
- 1.3.1.02.0006 Septic Tank Repair and Replacement
- 1.3.1.02.0010 HE Outfalls/CWA

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: CORRECTIVE ACTIVITIES
ACTIVITY TYPE: WATER RELEASES

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
131020004A	51	SANITARY WASTE WATER CONSOLIDATION SYSTEM	CA	W	1	39GF71023	39GB0103	14200	7600	3100	3500	0	0	0	0
131020001A	47	NPDES UPGRADES	CA	W	1	39GF71023	39GB0103	750	450	100	200	0	0	0	0
* Subsubtotal *								14950	8050	3200	3700	0	0	0	0
* PRIORITY: 2															
131020010	43	HE OUTFALLS/CWA	CA	W	2	GF7102863	OH	13557	0	0	0	1503	4512	7542	0
131020001B	105	NPDES UPGRADES	CA	W	2	39GF71023	39GB0103	5622	0	0	0	1200	1464	1901	1057
131020004B	106	SANITARY WASTE WATER CONSOLIDATION SYSTEM	CA	W	2	39GF71023	39GB0103	1500	0	0	0	1500	0	0	0
* Subsubtotal *								20679	0	0	0	4203	5976	9443	1057
* PRIORITY: 3															
131020003	46	NPDES PROJECTS	CA	W	3	GF7102863	GB0103	3556	0	283	284	285	285	1138	1281
131020006	52	SEPTIC TANK REPAIR	CA	W	3	GF7102863	OH	1551	0	284	285	783	199	0	0
131020002	54	SPILL PREVENTION CONTROL AND COUNTERMEASURES	CA	W	3	GF7102863	OH	569	0	284	285	0	0	0	0
* Subsubtotal *								5676	0	851	854	1068	484	1138	1281
** Subtotal **								41305	8050	4051	4554	5271	6460	10581	2338

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-71-02-3

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01-03

6. IDENTIFICATION NO:AL-0047-01/ 06-30
7. ACTIVITY NO: 1.3.1.02.0001A
8. ACTIVITY TITLE: NPDES Upgrades
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CWA, E012088, FFCA, NMWQCC & DOE Order 5400.1
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP	450	100	200				
Total	450	100	200				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-71-02-3

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01-03

6. IDENTIFICATION NO: AL-0105-01/06-30

7. ACTIVITY NO: 1.3.1.02.0001B

8. ACTIVITY TITLE: NPDES Upgrades

9. CATEGORY: CA: X ER: WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CWA, E012088, FFCA, NMWQCC & DOE Order 5400.1

12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP				1200	1464	1901	1057
Total				1200	1464	1901	1057
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $6,372K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Improvements will be made to existing sanitary and industrial outfalls to meet conditions of NPDES Permit and EPA/DOE Federal Facilities Compliance Agreement.

TA-53—The purpose of this project is to construct improvements which would provide adequate capacity of the lagoons and ensure total retention with no discharge to the environment.

TA-18—This project is needed in order to meet discharge permit requirements and to reduce the flow into the existing lagoons by eliminating infiltration.

TA-9—This project is required in order to meet discharge permit requirements and to upgrade the collection system at TA-9. If the project is not funded, violations of the NPDES permit could result.

Alarms—Approximately 28 lift stations are operated at the Laboratory to carry waste water to various treatment plants in the area. This proposed project includes installation of a high water monitor at each lift station wet well and central alarm system at the utility building at the TA-3 waste water treatment plant.

16. MILESTONE SCHEDULE (by fiscal year):

TA-53 construction completed	FY 1989
Prepare conceptual designs	FY 1990
Prepare Title I and II designs	FY 1991
Construct facilities	FY 1992
Continue construction	FY 1993-95

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

This is a series of corrective action projects.

18. PRIORITY RATIONALE:

Current non-compliance condition and operating under a formal compliance agreement (FFCA) with EPA.

Currently 2-5% of outfalls are in noncompliance with NPDES monthly reports. Limits are contained in FFCA.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium (overall)—Conceptual design in some outfalls; preconceptual design on others.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:
OPER:GF-71-02-86-3
CE: 35-
CONST: 39-

5b. OLD B&R CODE:
OPER: OVERHEAD
CE: 35-
CONST: 39-

6. IDENTIFICATION NO: AL-0054-01/ 06-30
7. ACTIVITY NO: 1.3.1.02.0002
8. ACTIVITY TITLE: Spill Prevention Control and Counter Measures
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: Clean Water Act
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		284	285				
Capital:							
Construction							
Equipment							
GPP							
Total		284	285				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $569K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The federal Clean Water Act requires that the provisions of a facilities SPCC Plan be implemented.

The spill Prevention Control and Countermeasure (SPCC) improvements are intended to prevent and control spills of oil, chemicals, and other liquids from storage tanks, drums and other containers into the environment, and specified watercourses. An SPCC Plan has been completed for the Laboratory, and improvements are recommended for 17 sites.

16. MILESTONE SCHEDULE (by fiscal year):

Complete construction FY 1990-91

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Compliance projects—currently lab indirect funded.

18. PRIORITY RATIONALE:

To attain compliance with current EPA regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

High—Conceptual designs completed.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:GF-71-02-86-3

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GB-01-03

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-0046-01/ 06-30
7. ACTIVITY NO: 1.3.1.02.0003
8. ACTIVITY TITLE: NPDES Projects
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: Clean Water Act, RCRA
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		283	284	285	285	1138	1281
Capital:							
Construction							
Equipment							
GPP							
Total		283	284	285	285	1138	1281
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,556K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

All of the sewage treatment lagoons at LANL are classified as sanitary waste water treatment facilities. By law, the effluent discharged from these lagoons is not subject to RCRA regulation; however, if the upstream collection, storage, and treatment components to the waste water treatment process contain a RCRA-listed hazardous waste or a characteristic waste (40 CFR 261), then these upstream components are subject to RCRA regulation. LANL is required to ensure that such facilities contain no such wastes. Therefore, a sampling program has been initiated to determine if any of these sewage lagoons may be found to be subject to RCRA monitoring, closure, and post-closure permitting standards as required under 40 CFR 264. Any corrective actions required under RCRA would be addressed by the ER Program.

Photographic waste water discharges currently either go directly to the environment through a permitted discharge or are discharged to the sanitary waste water treatment plants. DOE Orders, the NPDES permit restrictions, and RCRA require these outfalls to be upgraded. The project is designed to eliminate outfalls by installing a total retention system and silver recovery unit and by chemical substitution. This effort will complement the Laboratory's ongoing NPDES upgrade activity.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare sampling plan	FY 1990
Perform sampling	FY 1991
Prepare conceptual designs	FY 1992
Prepare Title I and II designs	FY 1993
Construct necessary facilities	FY 1994
Complete construction	FY 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Compliance project—lab indirect funding anticipated.

18. PRIORITY RATIONALE:

To attain compliance with current CWA regulation.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Low—Preconceptual design.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-71-02-3

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01-03

6. IDENTIFICATION NO:AL-0051-01/06-30

7. ACTIVITY NO: 1.3.1.02.0004A

8. ACTIVITY TITLE: Sanitary Waste Water Consolidation System

9. CATEGORY: CA: X ER: WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CWA, FFCA, EO 12088, NMWQCA

12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction	7600	3100	3500				
Equipment							
GPP							
Total	7600	3100	3500				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-71-02-3

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01-03

6. IDENTIFICATION NO:AL-0106-01/ 06-30
7. ACTIVITY NO: 1.3.1.02.0004B
8. ACTIVITY TITLE: Sanitary Waste Water Consolidation System
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CWA, FFCA, EO 12088, NMWQCA
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction				1500			
Equipment							
GPP							
Total				1500			
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $16,700K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Many of the existing waste water treatment facilities at the Laboratory are more than 30 years old and their discharge is in violation of federal and state regulations. This project will provide for the construction of a sanitary waste water treatment facility which will replace seven existing waste water plants and thirty individual septic tanks Laboratory-wide. The new consolidated treatment plant will include area-wide collection and treatment and will meet all federal and state regulations, as well as the requirements of Executive Order 12088. The treatment plant will consist of flow equalization, primary and secondary treatment, disinfection, recycling for water conservation, and analytical laboratory facilites.

16. MILESTONE SCHEDULE (by fiscal year):

Start Title I design	FY 1989
Complete Title I design	FY 1990
Complete Title II design	FY 1991
Construct project	FY 1992

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 1988-funded line item.

18. PRIORITY RATIONALE:

To attain compliance with current regulations and the Federal Facility Compliance Agreement with EPA.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium—Conceptual design.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:GF-71-02-86-3

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: OVERHEAD

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-0052-01/06-30
7. ACTIVITY NO: 1.3.1.02.0006
8. ACTIVITY TITLE: Septic Tank Repair
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: CWA, EO 12088, NM, Liquid Waste Regulations
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		284	285	783	199		
Capital:							
Construction							
Equipment							
GPP							
Total		284	285	783	199		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,551K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Approximately 60 septic tank systems are used for disposal of sanitary waste water at the Laboratory. Many of these systems have inadequate storage and absorption bed capacity and require frequent maintenance and pumping. This project will replace existing septic tanks, seepage pits, and absorption trenches which are inadequate and may not meet New Mexico Liquid Waste Regulations. This project is needed in order to eliminate waste water backups and overflows and to continue to meet regulations governing septic tank systems.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare designs	FY 1990
Repair necessary facilities	FY 1991 - 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Compliance project; anticipated Lab indirect funding.

18. PRIORITY RATIONALE:

To attain compliance with existing EPA regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium--Preconceptual design.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 2
Corrective Activities

Solid Wastes
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

1.4.1.2 Los Alamos National Laboratory

LANL must comply with DOE Order 5820.2A, Radioactive Waste Management. This order establishes policies, guidelines, and minimum requirements by which the department manages its radioactive and mixed waste and contaminated facilities.

There is a corrective activity necessary at LANL to comply with DOE 5820.2A and RCRA; that project is

- 1.4.1.02.0001 Hazardous Waste Treatment Facility

To ensure uninterrupted operation, LANL must do a project of PCB replacement and disposal. That projects is

- 1.4.1.02.0004 Replace PCB Transformers and Capacitors

Other projects LANL must perform in the next five years are

- 1.4.1.02.0005 Underground Storage Tank Upgrading
- 1.4.1.02.0011 Corrective Action FY 1989

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM. CORRECTIVE ACTIVITIES
ACTIVITY TYPE: SOLID WASTES

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
141020011	38	CORRECTIVE ACTIONS-FY89	CA	SW	1	GF7102864	OH	1586	1586	0	0	0	0	0	0
* Subsubtotal *								1586	1586	0	0	0	0	0	0
* PRIORITY: 3															
141020004	49	REPLACE PCB TRANSFORMERS AND CAPACITORS	CA	SW	3	GF7102864	GB0103	11000	0	2000	3000	3000	3000	0	0
141020001	42	HAZARDOUS WASTE TREATMENT FACILITY (LANL)	CA	SW	3	39GF71024	39GB0103	8000	0	1000	4200	2800	0	0	0
141020005	55	UNDERGROUND STORAGE TANKS	CA	SW	3	GF7102864	OH	7323	0	283	427	783	1463	1456	2911
* Subsubtotal *								26323	0	3283	7627	6583	4463	1456	2911
** Subtotal **								27909	1586	3283	7627	6583	4463	1456	2911

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PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-71-02-4

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-0042-01/ 06-30

7. ACTIVITY NO: 1.4.1.02.0001

8. ACTIVITY TITLE: Hazardous Waste Treatment Facility

9. CATEGORY: CA: X ER: WM:

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, NMHWA, NESHAPS, CAA, TSCH 5820.2A, 5400.2A

12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction		1000	4200	2800			
Equipment							
GPP							
Total		1000	4200	2800			
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $8,000K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

A 10,000-square-foot hazardous waste treatment facility at TA-50, Area C, at or near the solar collector field is required. This location is near waste generators and adjacent to the hazardous/mixed waste incinerator in the TDF. The facility would include sections allocated for lead recycling, waste oil recycling, D38/reactive compounds treatment, solidification operations, neutralization/plating waste treatment, PCB storage, sampling, and drum recycling.

16. MILESTONE SCHEDULE (by fiscal year):

Design facility	FY 1990
Construct facility	FY 1991-93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

In FY 1990 Pres. budget, amended.

18. PRIORITY RATIONALE:

Over the last several years, the Laboratory has responded to RCRA and TSCA waste management requirements on a need basis. The result has been the installation of a variety of treatment processes at various locations. The intent of this proposal is to consolidate all hazardous waste treatment processes at one location, and to include processes for which no treatment processes now exist at Los Alamos. Lack of funding for this project will result in failure to achieve regulatory compliance, higher risks for unnecessary transportation on public roads, and continued operation at a chemically-contaminated site (TA-50, Area L). LANL has been cited for non-compliance with hazardous waste regulations by the N.M. EID. This project will ensure compliance with existing State, EPA, and DOE regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium--Conceptual design equivalent.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-71-02-86-4

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GB-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-0049-01/06-30
7. ACTIVITY NO: 1.4.1.02.0004
8. ACTIVITY TITLE: Replace PCB Transformers and Capacitors
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: Toxic Substance Control Act Regulations
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		2000	3000	3000	3000		
Capital:							
Construction							
Equipment							
GPP							
Total		2000	3000	3000	3000		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $11,000K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The purpose of this project is to replace, in a coordinated change out, electrical systems now containing PCBs at the Laboratory in order to comply with EPA regulations (40 CFR part 761). Approximately 129 substations (transformers) containing PCB insulating liquids and associated switchgears, and approximately 100 PCB-filled indoor capacitors used in the Los Alamos Potable Water Production, Transmission, and Storage System will be replaced. Many of LANL's PCB electrical units are leaking as identified by DOE Headquarters environmental survey of the site. Replacement will ensure that the adverse effects of fire will not occur. Additionally, because many of these units have exceeded their useful life expectancies, the potential for a failure, PCB spill, or PCB contamination exists.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare engineering designs	FY 1990
Replace transformers and capacitors	FY 1991
Ongoing	FY 1992
Design for and replace remaining units	FY 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 1990 pres. budget, amended.

18. PRIORITY RATIONALE:

Necessary to attain compliance with TSCA, 40 CFR 761, and eliminating potential hazards.

19. LEVEL OF CONFIDENCE AND RATIONALE:

High—Conceptual design report prepared for Line Item submission for FY 1988 funding.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:
OPER:GF-71-02-86-4
CE: 35-
CONST: 39-

5b. OLD B&R CODE:
OPER: OVERHEAD
CE: 35-
CONST: 39-

6. IDENTIFICATION NO: AL-0055-01/06-30
7. ACTIVITY NO:1.4.1.02.0005
8. ACTIVITY TITLE: Underground Storage Tanks
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		283	427	783	1463	1456	2911
Capital:							
Construction							
Equipment							
GPP							
Total		283	427	783	1463	1456	2911
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $7,323K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Beginning in FY 1990, a five-year rotating schedule of underground storage tank (UST) tightness testing and general system upgrading must begin for the more than 100 in-service tanks. Approximately 20 to 25 USTs must be tested each year under this plan. This schedule allows for existing tank replacement with the new underground tank vault systems having secondary containment for all piping, and an automatic leak detection capability. Removal of abandoned tanks (including any clean-up of contaminated soil) will be funded by the Environmental Restoration Program.

16. MILESTONE SCHEDULE (by fiscal year):

Establish inventory control & record keeping	FY 1990
15 tank modifications for inventory control and leak detection	FY 1990
25 tank modifications for inventory control and leak detection	FY 1991
Replace/upgrade 10 tanks to tank standards	FY 1992
Replace 20 tanks	FY 1993
Replace 20 tanks	FY 1994
Replace 40 tanks	FY 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Compliance projects--Currently lab indirect (overhead) funded.

18. PRIORITY RATIONALE:

To attain compliance with current NM UST regulations OF 1988.

19. LEVEL OF CONFIDENCE AND RATIONALE:

High--Definitive design and implementation.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF 71-02-86-4

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: OVERHEAD

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-0038-01/ 06-30
7. ACTIVITY NO: 1.4.1.02.0011
8. ACTIVITY TITLE: Corrective Action for FY 1989
9. CATEGORY: CA: X ER: WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: RCRA, CWA, NPDES
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	1586						
Capital:							
Construction							
Equipment							
GPP							
Total	1586						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1586K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Environmental Compliance projects in FY89 include such activities as RCRA closures, NPDES upgrades, and UST testing and repair.

16. MILESTONE SCHEDULE (by fiscal year):

To be completed in FY 1989

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (weapons)

18. PRIORITY RATIONALE:

Directly compliance related.

19. LEVEL OF CONFIDENCE AND RATIONALE:

High

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 3
Environmental Restoration

Assessment
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

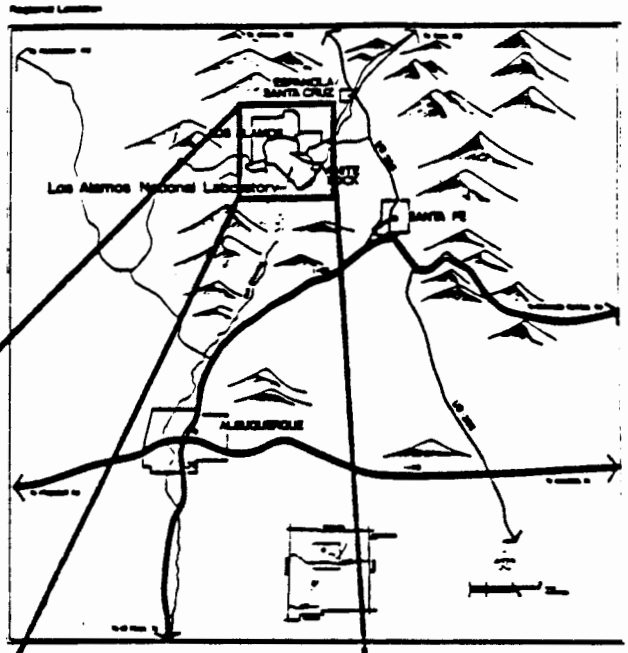
LOS ALAMOS NATIONAL LABORATORY

Since its inception in World War II, LANL's primary mission has been applying scientific and engineering capabilities to ensure the nation's deterrent response through nuclear weapons technology. Today, LANL is a research and development facility tasked with a variety of programs based in the physical, chemical, and biological sciences. Major programs include applied research in areas such as nuclear and conventional weapons development, nuclear fission and fusion, nuclear safeguards and security, and waste management. LANL is operated by the University of California; Pan Am World Services is under contract to the University of California and provides support services to the Laboratory.

LANL is located in Los Alamos County in north-central New Mexico, approximately 60 miles north-northeast of Albuquerque and 25 miles northwest of Santa Fe (Figure 2.2.1.2.1). The Laboratory occupies about 24,400 acres. LANL and adjacent communities are situated on the Pajarito Plateau which is made up of finger-like mesas. The mesa tops range in elevation from approximately 6,200 feet to 7,800 feet. The land surrounding LANL is largely undeveloped. The offsite environment impact associated with past LANL operations is minimal because of the geological and hydrological conditions of the area and former waste management practices. Population estimates for 1988 place about 185,000 people within a 50-mile radius of Los Alamos.

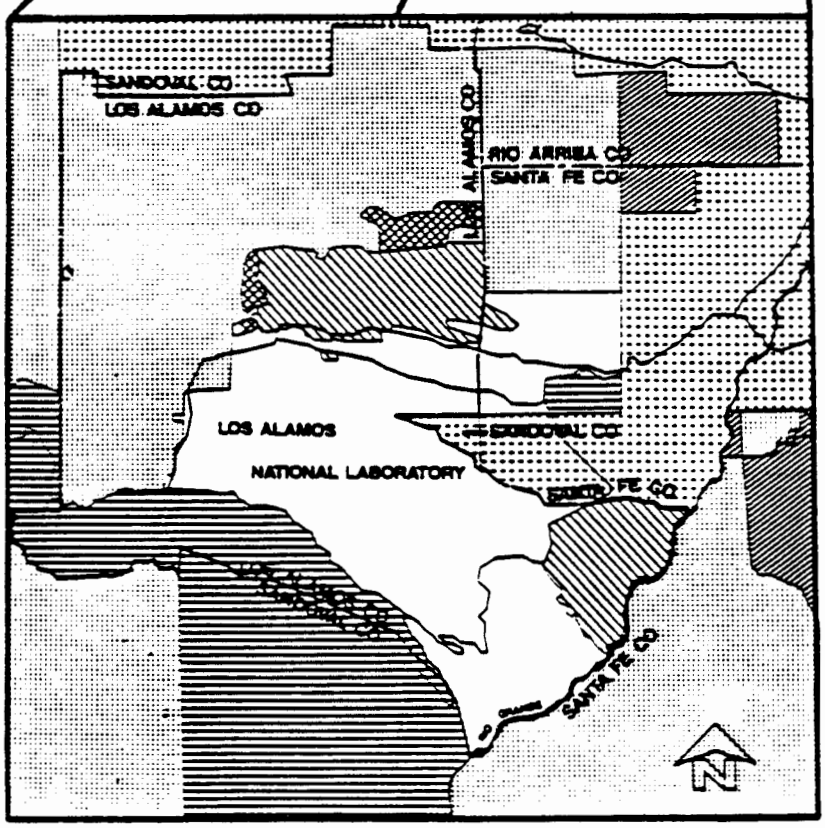
Before World War II, some farming and ranching work took place on the Pajarito Plateau. The Los Alamos Ranch School for boys was located in the area of the present downtown Los Alamos. The school and other private holdings were purchased by the War Department in 1942 to establish a secret laboratory to research and develop a nuclear fission device. In 1947, this installation became the Los Alamos Scientific Laboratory and, in 1980, the Los Alamos National Laboratory.

LANL LOCATION MAPS



Land Ownership

- Department of Energy
- Santa Fe National Forest
- County and Private Ownership
- Bandelier National Monument
- General Services Administration
- Public Lands
- Indian Lands
- Los Alamos County Line



2.2.1.2. Assessment—Los Alamos National Laboratory

Objectives, Goals, and Strategy

The primary objective of the LANL assessment phase of the DOE AL ER Program is to implement DP requirements for identifying, characterizing, and developing the remediation strategy for inactive waste sites. The ultimate goal of the program is to bring identified sites into compliance with environmental laws and regulations that govern environmental restoration at LANL.

In carrying out LANL's mission, four types of hazardous waste were generated: (1) wastes from processing operations, (2) wastes from research and development (R&D) activities, (3) high-explosive waste, and (4) wastes from decontamination and decommissioning (D&D). Each of these general waste types has unique characteristics. Wastes from processing operations typically consisted of significant volumes of material that contain a limited number of contaminants, including radionuclides, solvents, organics, and metals. Treated and untreated liquid process streams were discharged to the canyons. Wastes from R&D, however, were usually smaller volumes of different laboratory reagents, chemicals, solvents, metals, radionuclides, and other general laboratory wastes. In addition, the composition and concentration of the contaminants in a given process waste were generally uniform unless modifications to the process were made. Conversely, the waste constituents from R&D activities continually varied depending on the nature of the rapidly changing R&D efforts of the Laboratory. High-explosive wastes consisted of a fairly constant, narrow assemblage of chemicals in varying concentrations, including barium and other metals. D&D wastes typically consisted of large quantities of building debris that were contaminated with radionuclides and, in some instances, high-explosive residuals. Laboratory wastes were typically disposed in material disposal areas which consisted of trenches, pits, and shafts.

The goal of identifying, characterizing, and developing the remediation strategy for inactive waste sites will be achieved by conducting assessments of the potential environmental issues at LANL under both RCRA and CERCLA to evaluate what remediation activities need to be done. The assessment process evaluates the technical feasibility of the clean-up alternatives and determines the best course of action to remediate the problems identified.

Definitions and Assumptions

From 1984 to 1986, LANL and DOE AL performed an installation assessment to identify potential hazardous waste release sites under the DOE AL ER Program predecessor, CEARP. The results of this PA/SI investigation, called the CEARP Phase I Installation Assessment, was submitted to EPA Region VI and the NM Environmental Improvement Division in October 1987. The Phase I investigation identified approximately 500 potential release sites, which form the basis for the current DOE AL ER Program at LANL. The 500 potential release sites and old material disposal areas were individually ranked and scored to derive a technical area and then a

"task" priority list. All 500 sites were placed into 55 "tasks," and all tasks contain both RCRA SWMUs and CERCLA/SARA potential release sites.

In addition to the 55 CERCLA/RCRA potential release site "tasks," eight RCRA closure tasks have been identified. Closure plans for SWMUs in seven of the tasks have been submitted to NMEID and are pending approval. The eighth RCRA closure task addresses future closures expected to be included in the RCRA permit. Also listed within the ER program are four major activities to support the RCRA closure and the CERCLA/RCRA release site remediations. These activities are the RCRA Mixed-Waste Disposal Facility, Interim Remedial Measure Program, Pilot Studies, and NEPA documentation.

- The RCRA waste generated by the RFI/CMS and RI/FS process at LANL may initially be shipped offsite. BY FY92, LANL plans to have a RCRA-permitted mixed waste disposal facility for RCRA waste.

- The Interim Remedial Measures program is designed to clean up existing contamination known or found at the potential release sites which could be mitigated by prompt cleanup. Some sites have surface contamination (mainly radionuclides), which is migrating from the mesa tops into the canyons. Although the concentrations are low, removal of the mesa source terms would stop migration of the surface contamination by erosional processes.

- Several pilot studies are needed at LANL. Currently, one pilot study has been initiated on an old TRU-waste burial site. Much of the waste at LANL potentially significant to the ER program is buried mixed waste found in designated "material disposal areas." The pilot studies are designed to ensure sufficient data is available to support stabilization of these material disposal areas in place.

- Several NEPA documents are planned by the DOE AL ER program to address the impacts of the remediation of these sites.

For the five-year plan, the tasks and activities were split into two components: the assessment phase and the remediation phase. These two phases were then ranked using the five-year plan priority system from 1-4. There are no Priority 4s at LANL for assessment. Priority 1 applies to ongoing activities in FY 89. Priority 2 applies to all tasks necessary to ensure that state and federal regulatory requirements are met and require funding in FY 91. Priority 3 applies to tasks that have regulatory drivers, but do not have identified funding for FY 1991.

Cost estimates for assessments were made parametrically by using basic unit prices for simple, moderately complex, or highly complex tasks. Task complexity was determined from the type of potential release sites, the environmental setting, the potential contaminants, and the contaminant mobility factors. Based on the level of complexity, a determination was made on whether to conduct a single- or two-stage remedial investigation. Costs for assessment were then assigned to the task by using historic cost information from contractor's prior experience in performing similar activities at other locations. To provide cost estimates on potential release sites where no environmental data was available to determine

whether the site contained hazardous materials, the site was assumed to be contaminated, and further the site was assumed to require partial exhumation followed by capping to isolate the assumed contamination from the environment. It is not known whether these sites contain contamination sufficient to require remediation, but these sites will require sampling to determine whether they will require characterization and eventual remediation. It could happen that about one-third of the LANL sites will be found to have no significant contamination and therefore be dropped from the DOE AL ER program. The total cost estimates for these material disposal areas are probably within a factor of two or three; but the remaining sites where no data is available could have cost estimates with variances ranging from one to two orders of magnitude.

Major Driving Factors

The technical strategy for accomplishing the DOE AL ER program goals for LANL is directly connected to regulatory drivers. The major regulatory driver for LANL is the RCRA operating permit expected to be issued November 1989. It is anticipated that the RCRA operating permit will require LANL to prepare a single, installation-wide work plan within 180 days that contains an annually updated work schedule. The RCRA operating permit is expected to specify that DOE AL ER program documents prepared for the investigations be equivalent to RCRA Facility Investigation and RCRA Corrective Measures Study documentation.

Presently, LANL is not an NPL site under CERCLA. The PA/SI document called the Phase I Report was submitted to EPA VI and NMEID in October 1987. LANL may be rescored under the new HRS system by EPA in the future.

The fourth regulatory driver is DOE-EH and DOE Orders, which include waste management, RCRA, CERCLA/SARA, and NEPA regulations. The strategy at LANL has been to centralize the interaction with EPA and NMEID and to negotiate with the regulatory agencies before committing documents and activities within the DOE AL ER program.

Issues

The following is a list of the major issues at LANL.

1) There is concern that completion of the NEPA documents may interfere with RCRA and CERCLA/SARA regulatory schedules set by EPA and NMEID. Both the EPA and NMEID do not consider NEPA documents necessary when RCRA and CERCLA/SARA sites are characterized and remediated. NEPA is a DOE-required adjunct within the DOE AL ER program, which could cause delays in meeting the schedules and hence cause fines and notices of violations.

2) Applicability and implementation of DOE orders within waste management, RCRA, CERCLA/SARA, and NEPA, requirements are difficult for a non-NPL site like LANL. The orders either do not address the specific needs at LANL or require conflicting needs with the EPA and state requirements.

3) The mechanism for handling mixed wastes before permitting of the proposed LANL mixed waste disposal facility is uncertain.

Current Status

The DOE AL ER Program has been active at LANL since 1984. Before 1984 historical remedial actions were done as part of the D&D and FUSRAP programs at LANL, which concentrated on radioactive sites. DOE AL ER Program accomplishments to date include

- CEARP Phase I PA/SI Report submitted to EPA VI and NMEID October 1987;
- CEARP Phase II Document: Comprehensive Environmental Assessment and Response Program Generic Monitoring Plan, July 1986;
- RCRA Closure Plans for Tasks AL-RC-1, AL-LA-RC-2, AL-LA-RC-3, AL-LA-RC-4, AL-LA-RC-5, AL-LA-RC-6, and AL-LA-RC-7 have been submitted to NMEID;
- CEARP Phase II Document: Remedial Investigation/Feasibility Study, White Rock Y Interchange, Los Alamos, New Mexico; Remedial Investigation Plan, August 1987;
- Environmental Restoration Program: Standard Operating Procedures, May 1988 (Draft);
- Task AL-LA-2 Site Reconnaissance Plan for Technical Area 33 was published April 1989; currently reconnaissance sampling activities are under way at TA-33;
- Task AL-LA-22-3 Site Reconnaissance Plan for Technical Area 15 DARHT areas was published February 1989; field work and sampling were completed March 1989;
- LANL's SWMUs report was cross referenced with LANL's DOE AL ER Program CERCLA/SARA sites; and
- scoping and reconnaissance is currently being conducted at 37 tasks at LANL for development of work plans.

Summary

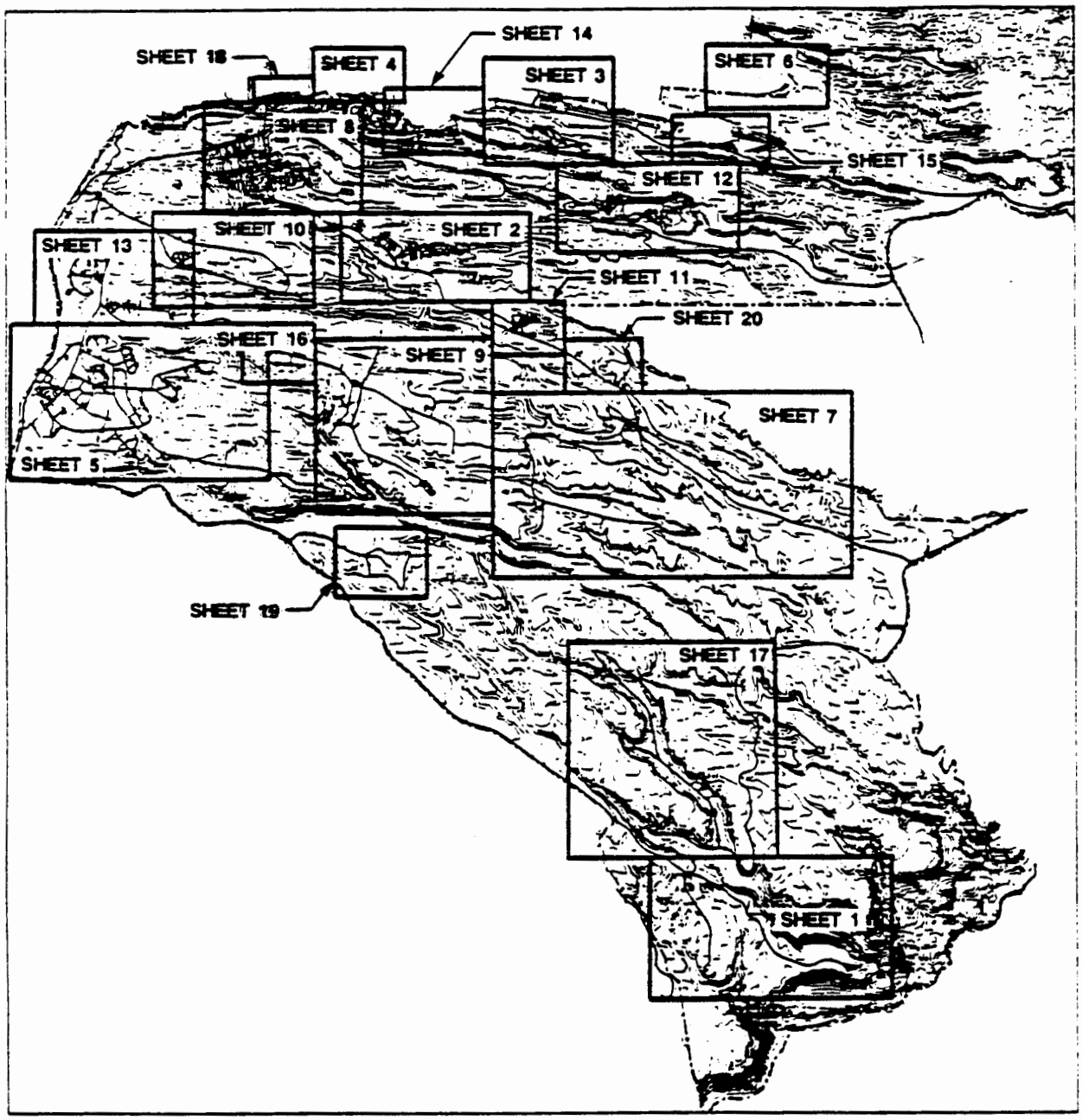
An assessment summary for LANL has been prepared. This summary includes funding summaries by task and by program priority.

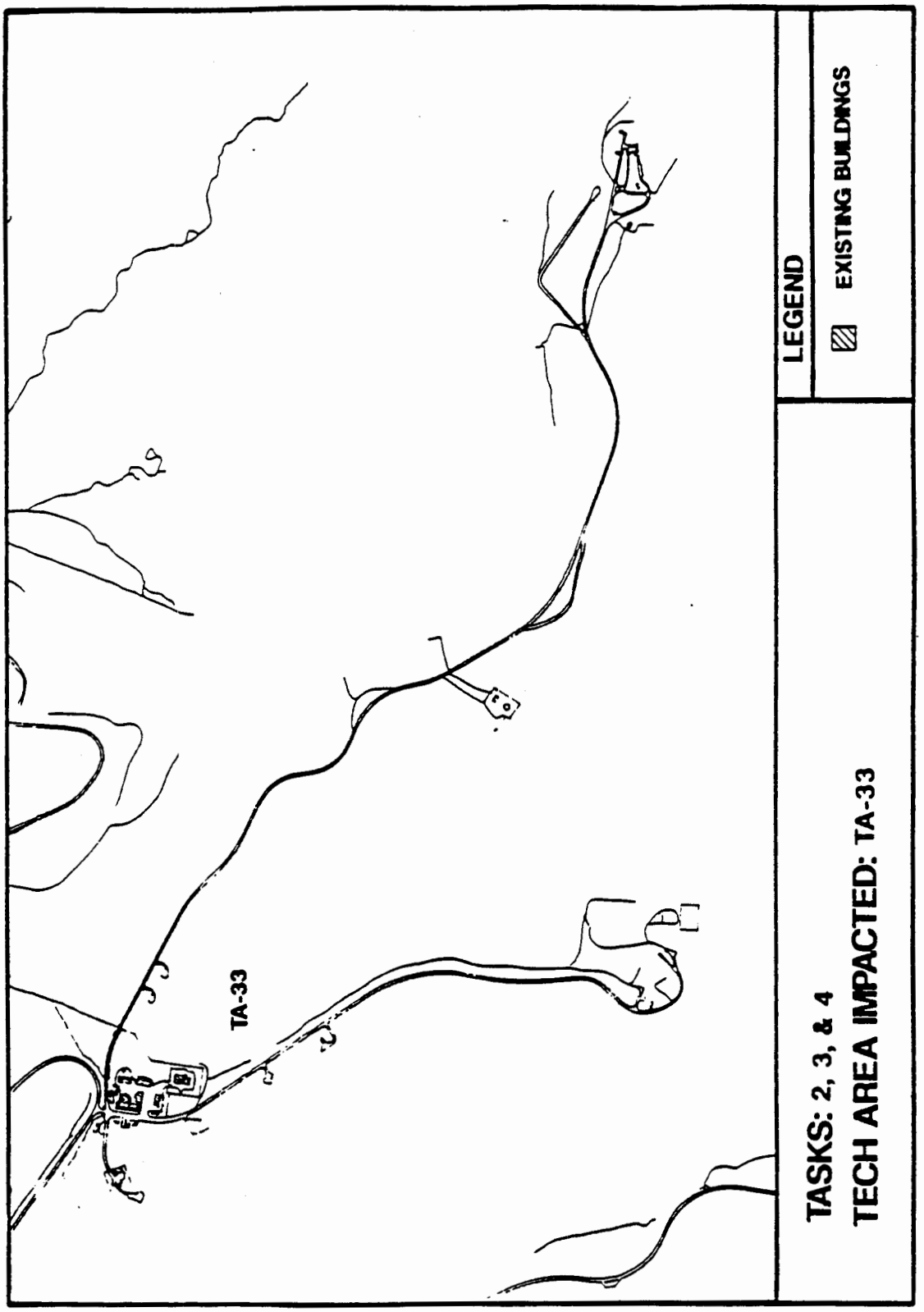
TASK MAP DIRECTORY

TASK	SHEET	TA'S IMPACTED
1	---	NOT SHOWN
2	1	TA-33
3	1	TA-33
4	1	TA-33
5	2	TA-4, 5, 35, 42 48, 50, 52, & 55
6	2	TA-4, 5, 35, 42, 48, 50, 52, & 55
7	2	TA-4, 5, 35, 42 48, 50, 52, & 55
8	3	TA-21
9	3	TA-21
10	3	TA-21
11	4	TA-1
12	5	TA-11, 13, 16 24, 25, & 28
13	5	TA-11, 13, 16, 24, 25, & 28
14	5	TA-11, 13, 16, 24, 25, & 28
15	6	TA-10
16	7	TA-18 & 27
17	7	TA-18 & 27
18	7	TA-18 & 27
19	8	TA-3 & 59
20	8	TA-3 & 59
21	8	TA-3 & 59
22	9	TA-15
23	9	TA-15
24	9	TA-15
25	—	NOT SHOWN
26	—	NOT SHOWN
27	—	NOT SHOWN
28	10	TA-6, 7, 22, & 40
29	10	TA-6, 7, 22, & 40
30	10	TA-6, 7, 22, & 40
31	11	TA-46
32	11	TA-46
33	11	TA-46
34	12	TA-53
35	12	TA-53
36	13	TA-8, 9, & 23
37	13	TA-8, 9, & 23
38	7	TA-36
39	7	TA-36
40	14	TA-32
41	14	TA-2 & 41
42	14	TA-2 & 41
43	15	TA-26
44	15	TA-26
45	15	TA-19
46	7	TA-54
47	16	TA-12
48	17	TA-39
49	3	TA-31
50	18	TA-43
51	19	TA-49
52	19	TA-49
53	4	TA-45
54	16	TA-14
55	20	TA-51
56	---	NOT SHOWN
57	—	NOT SHOWN

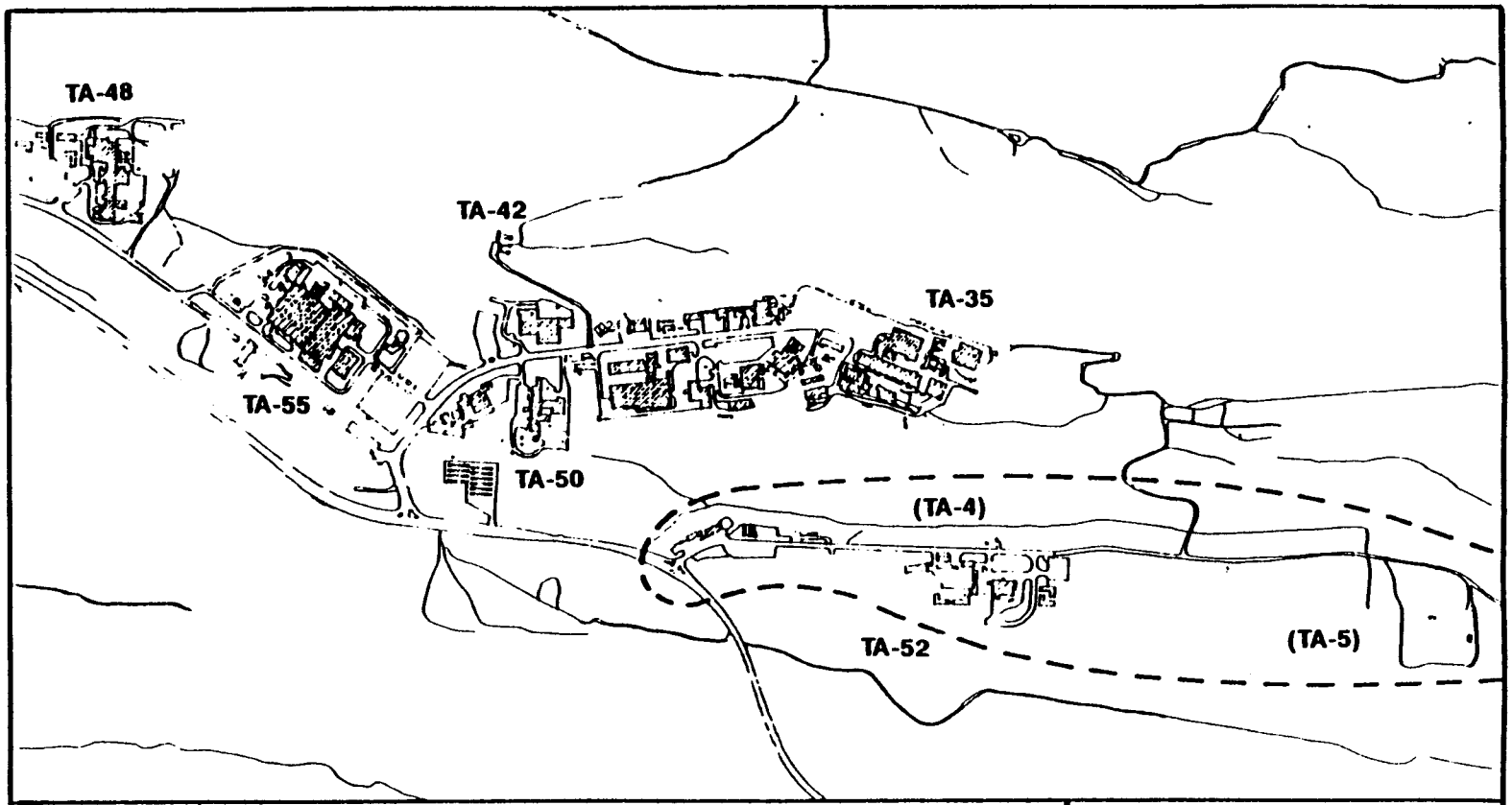
(0066Y)

LOS ALAMOS NATIONAL LABORATORY




TA-33
LEGEND
EXISTING BUILDINGS
TASKS: 2, 3, & 4
TECH AREA IMPACTED: TA-33

SHEET 1



TASKS: 5, 6, & 7

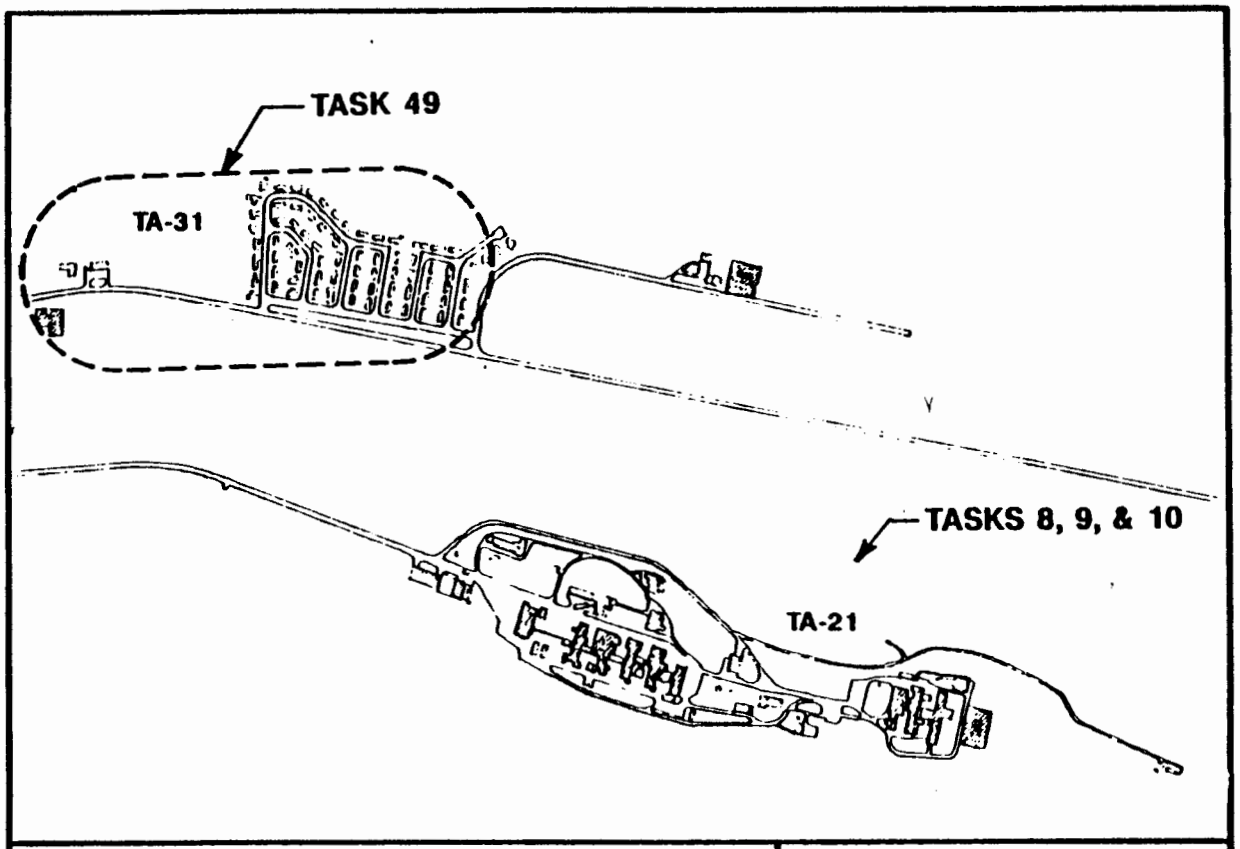
TECH AREAS IMPACTED: TA-4, TA-5, TA-35, TA-42, TA-48, TA-50, TA-52, & TA-55

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 2

PREDECISIONAL DRAFT



TASKS: 8, 9, & 10; 49

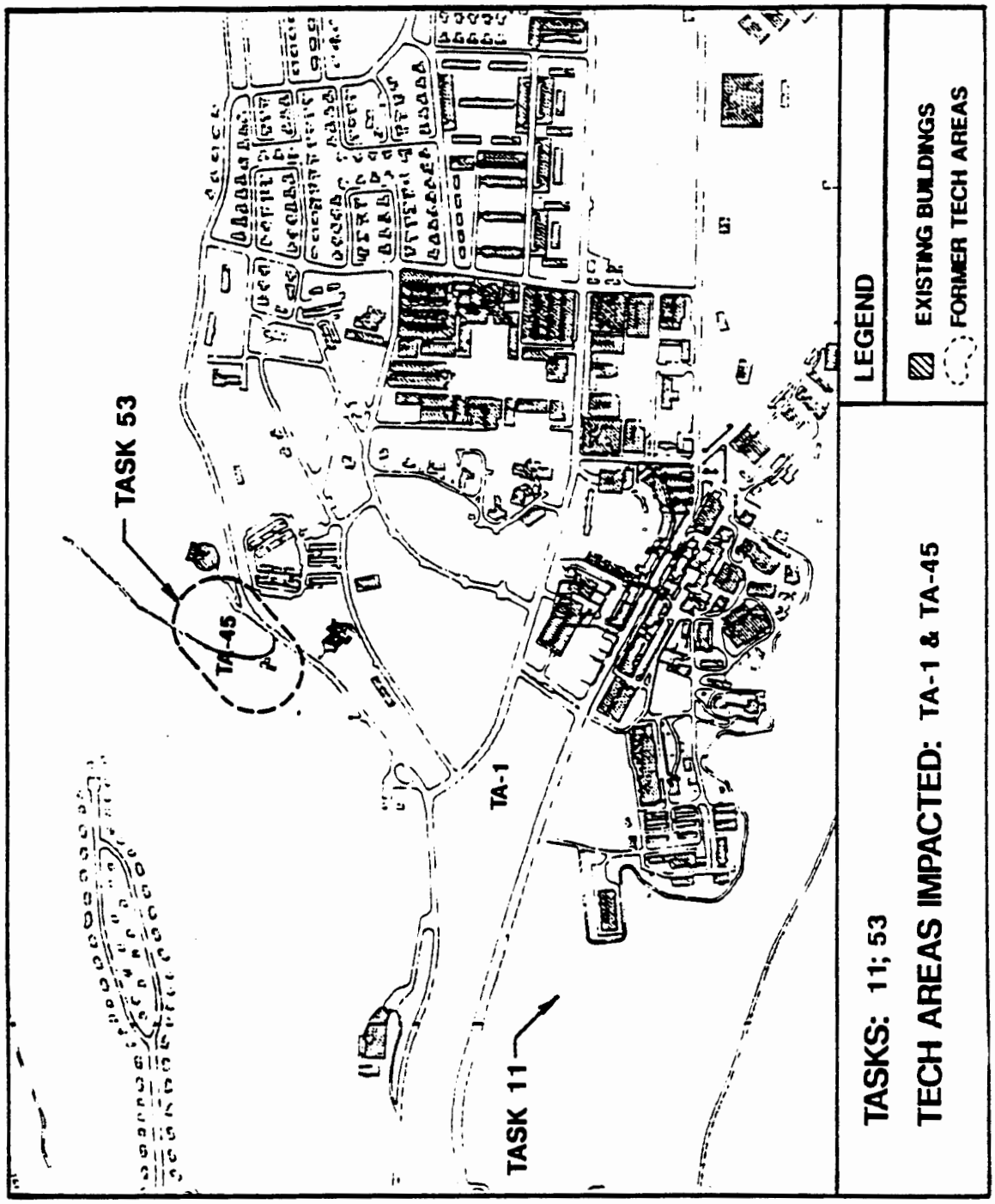
TECH AREAS IMPACTED: TA-21 & TA-31

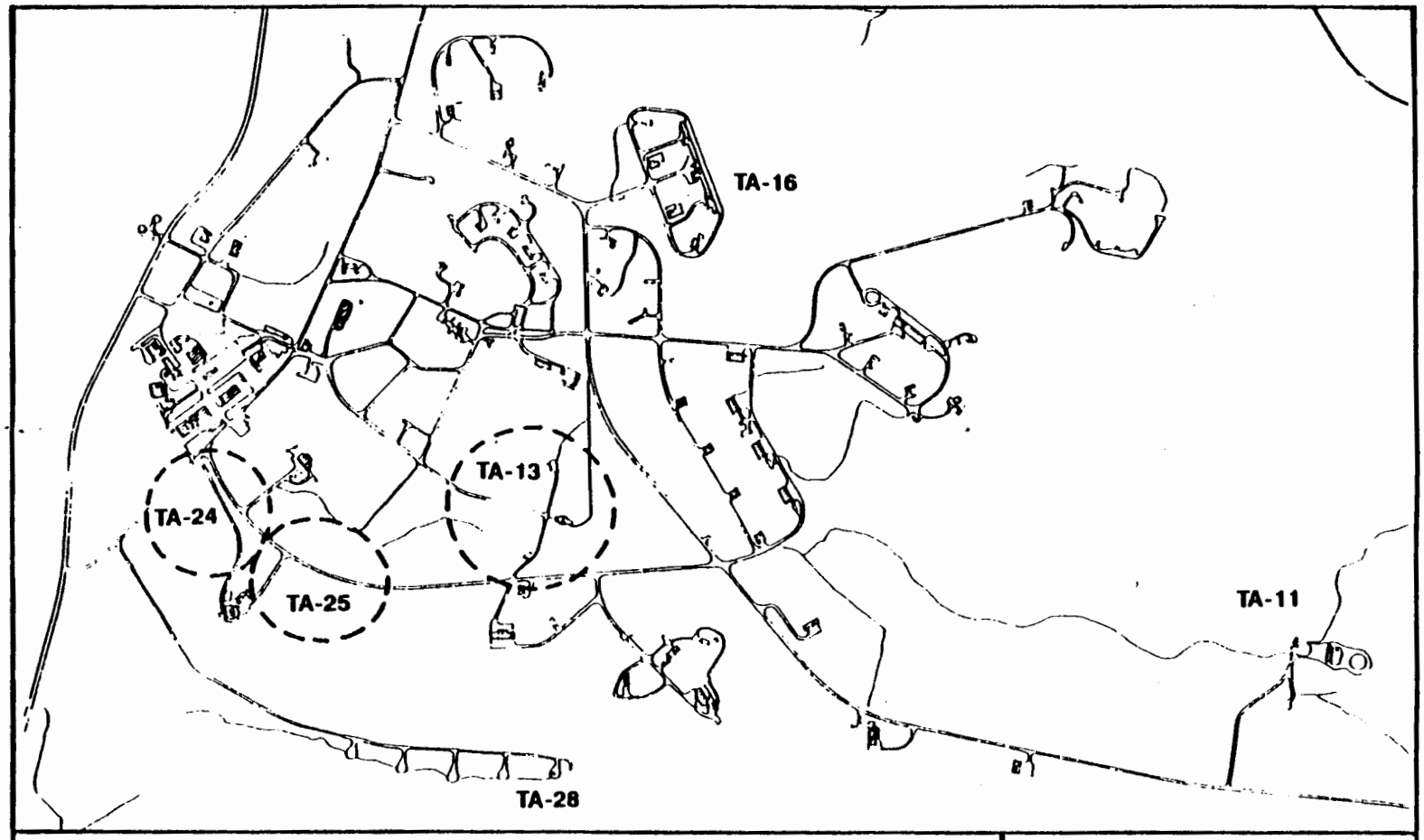
LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 3

PREDECISIONAL DRAFT


TASK 53
TA-45
TA-1
TASK 11
LEGEND
EXISTING BUILDINGS
FORMER TECH AREAS
TASKS: 11; 53
TECH AREAS IMPACTED: TA-1 & TA-45



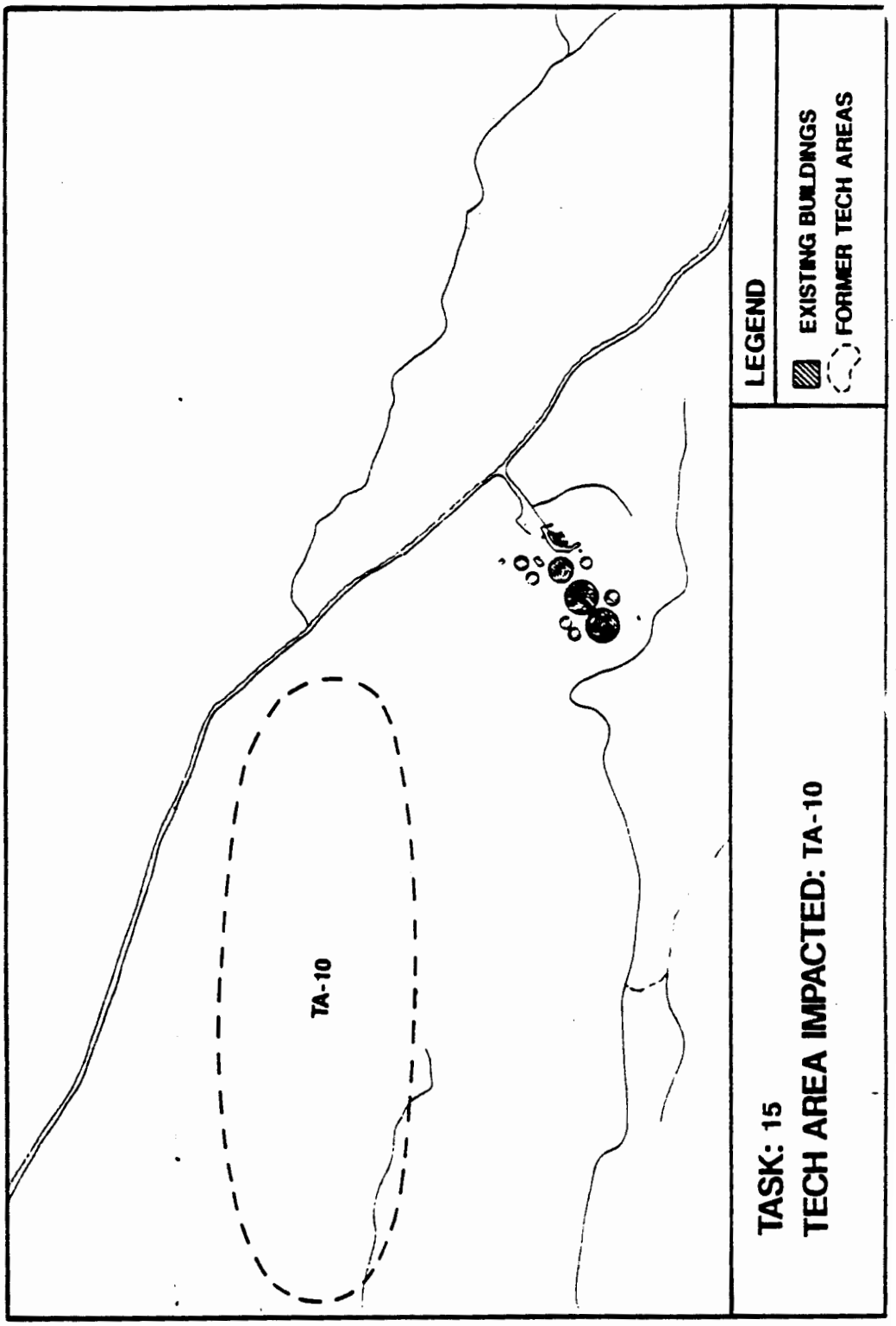
TASKS: 12, 13 & 14

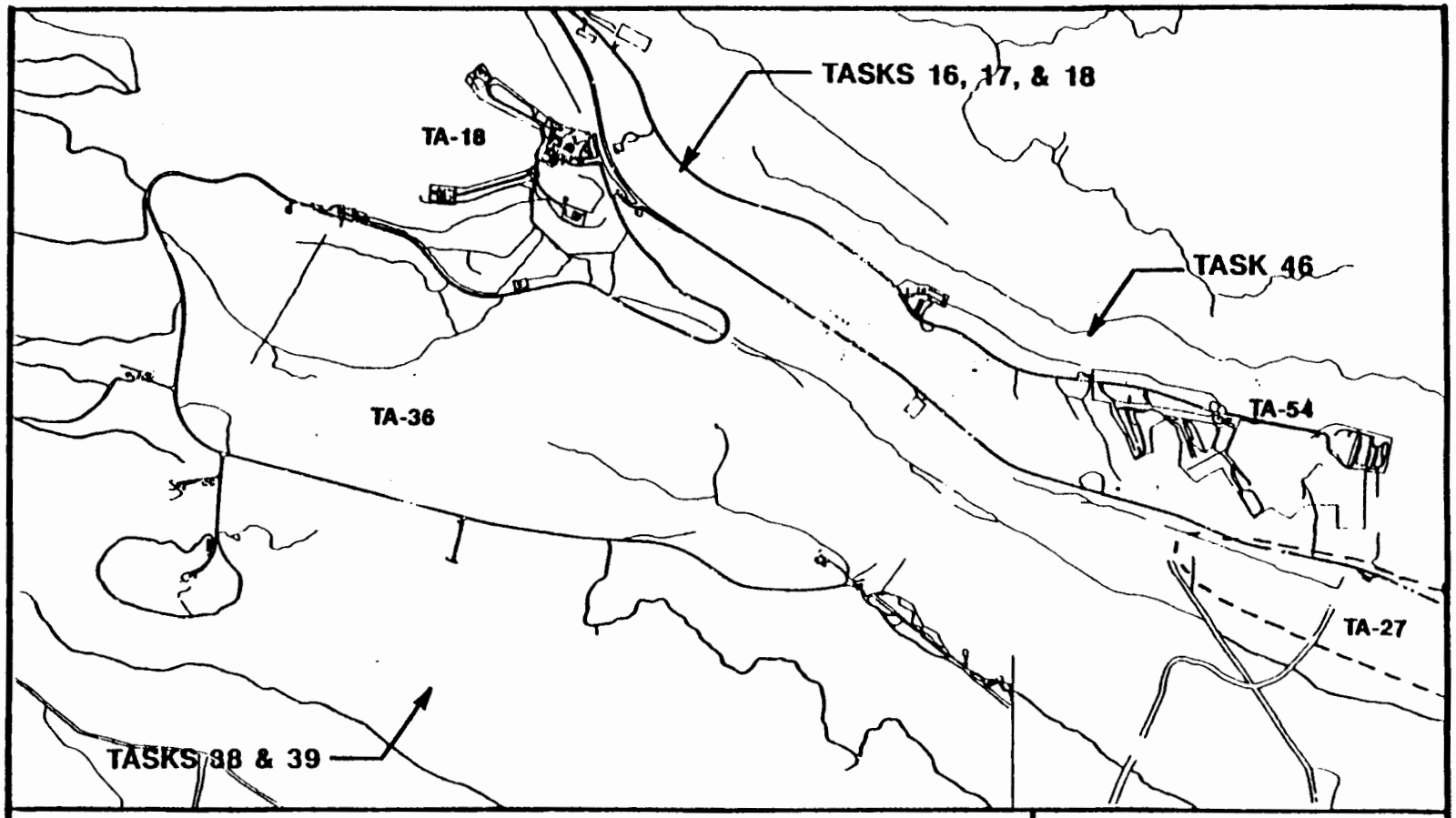
TECH AREAS IMPACTED: TA-11, TA-13, TA-16, TA-24, TA-25, & TA-28

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 5


TA-10
LEGEND
EXISTING BUILDINGS
FORMER TECH AREAS
TASK: 15
TECH AREA IMPACTED: TA-10



TASKS: 16, 17, & 18; 38 & 39; 46

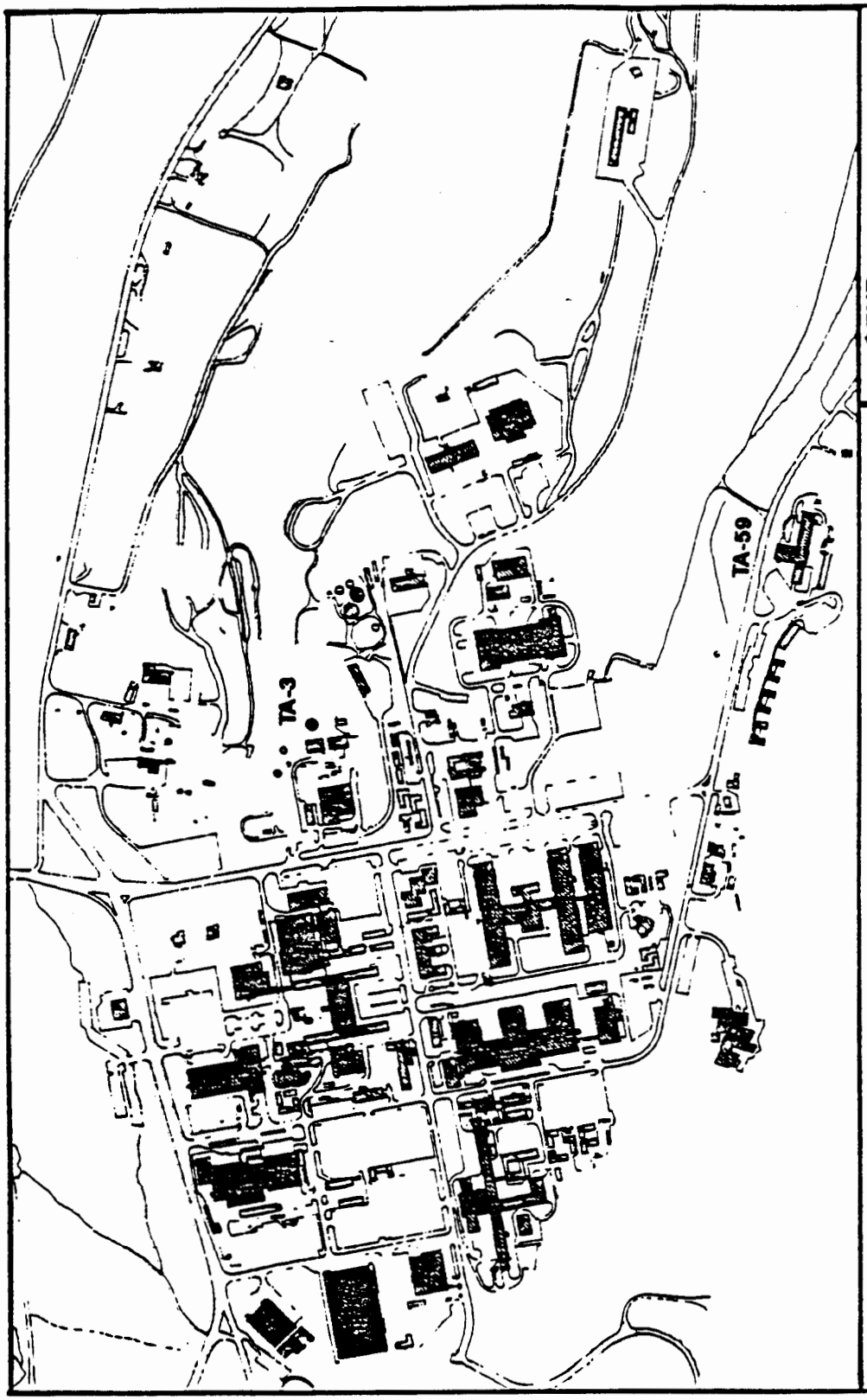
TECH AREAS IMPACTED: TA-18, TA-27, TA-36, & TA-54

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 7

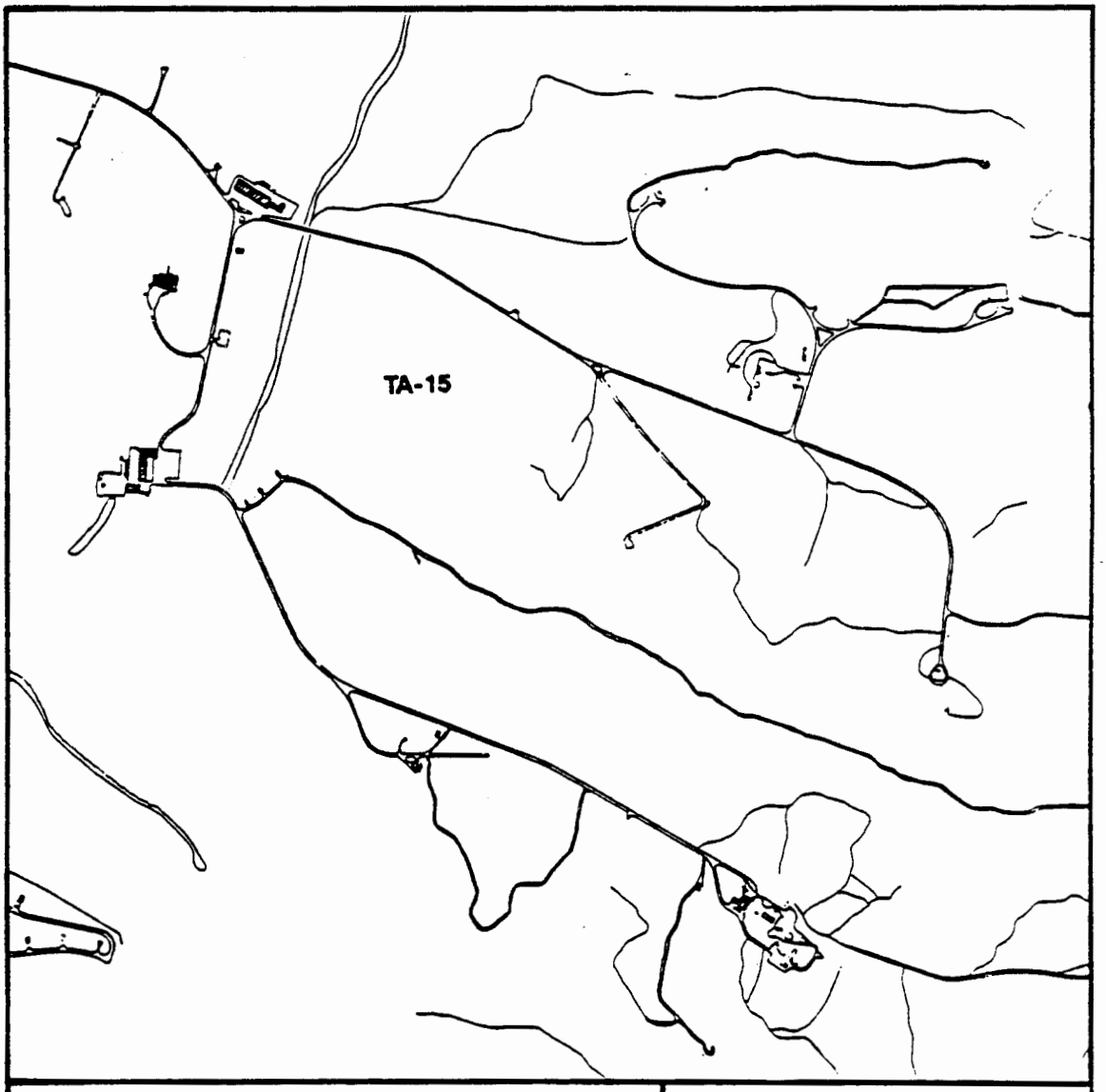
PREDECISIONAL DRAFT



LEGEND

EXISTING BUILDINGS

TASKS: 19, 20 & 21
TECH AREAS IMPACTED: TA-3 & TA-59



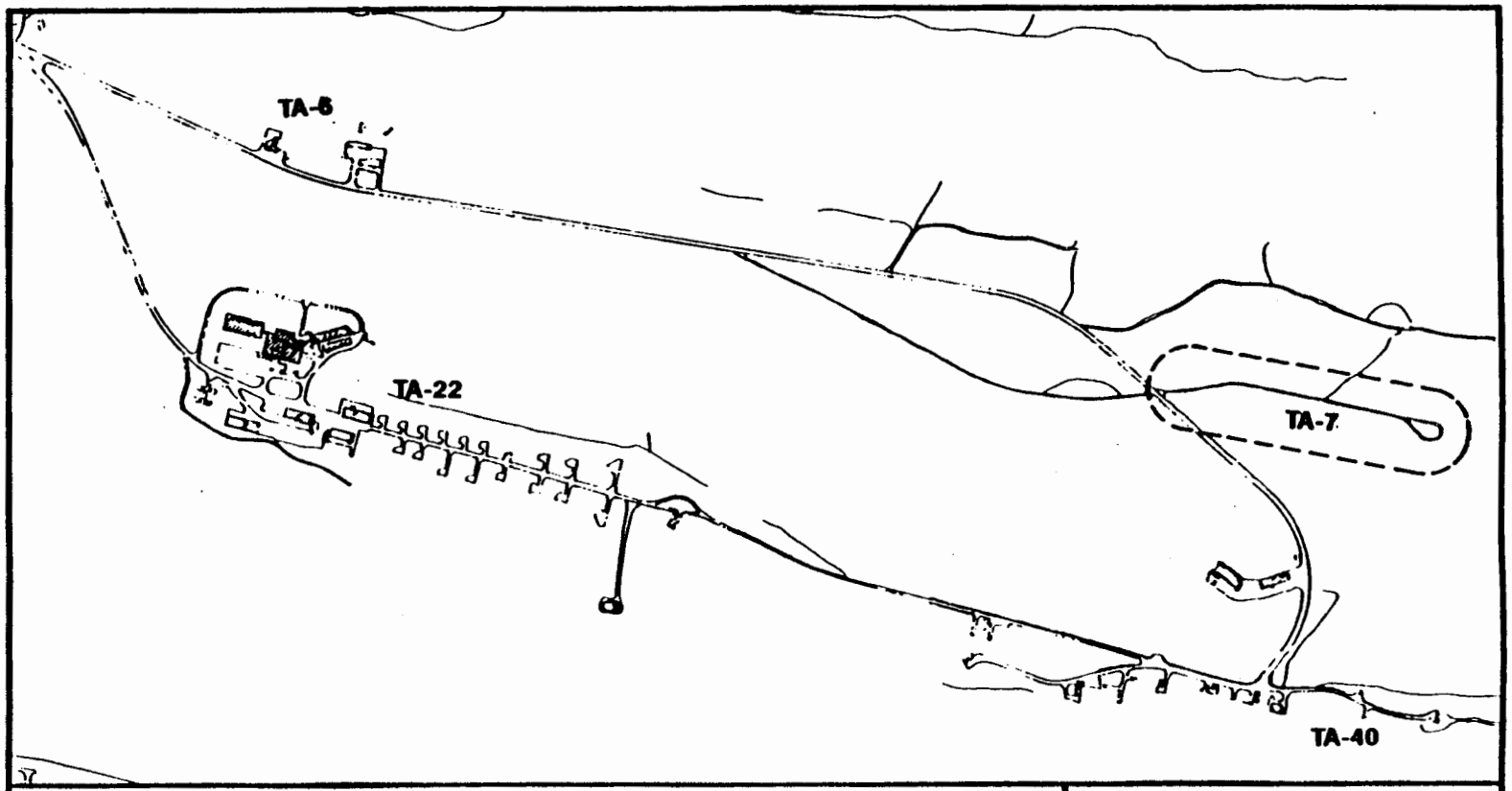
SHEET 9

TASKS: 22, 23, & 24

TECH AREA IMPACTED: TA-15

LEGEND

EXISTING BUILDINGS



TASKS: 28, 29, & 30

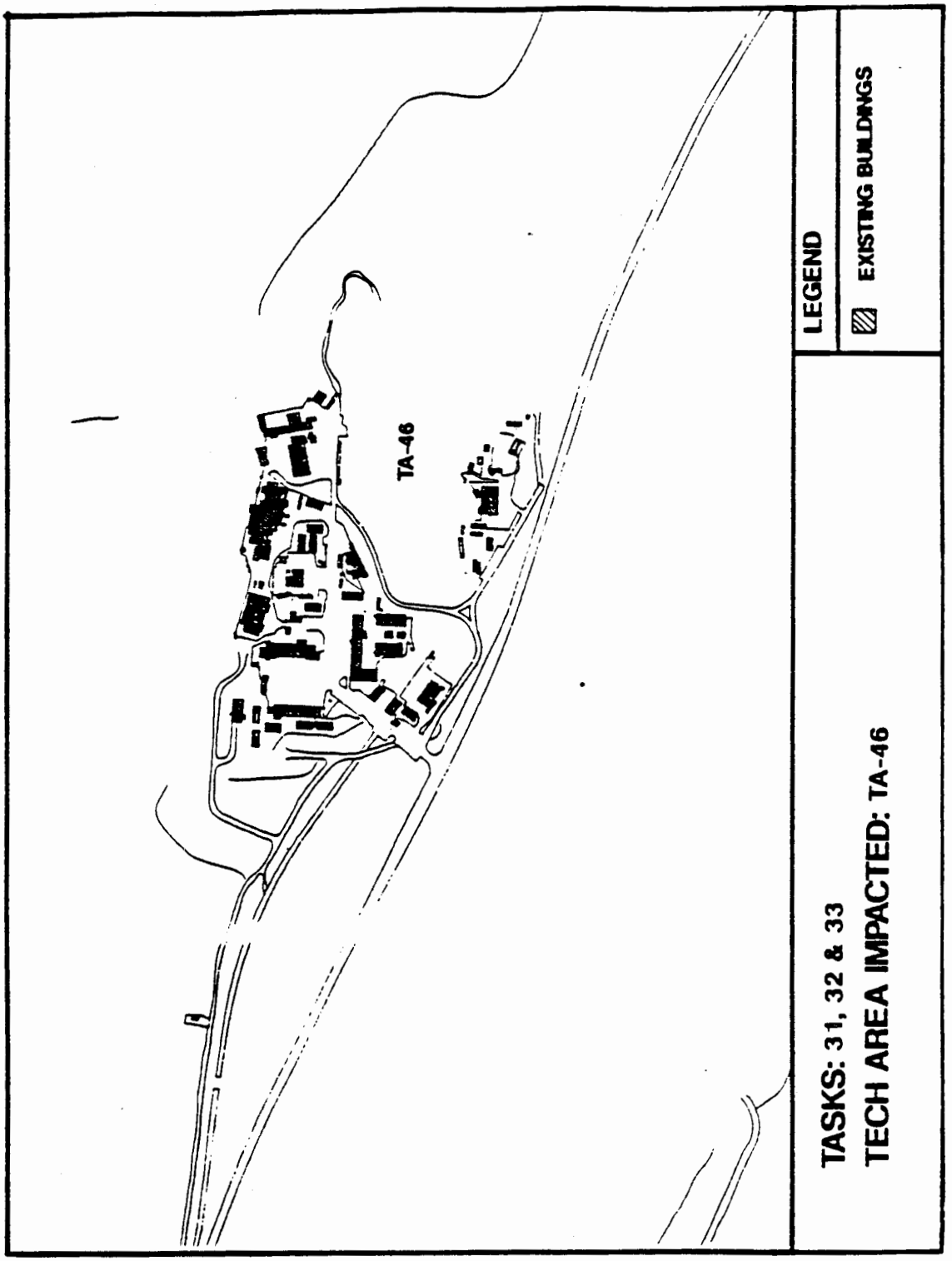
TECH AREAS IMPACTED: TA-6, TA-7, TA-22, & TA-40

LEGEND

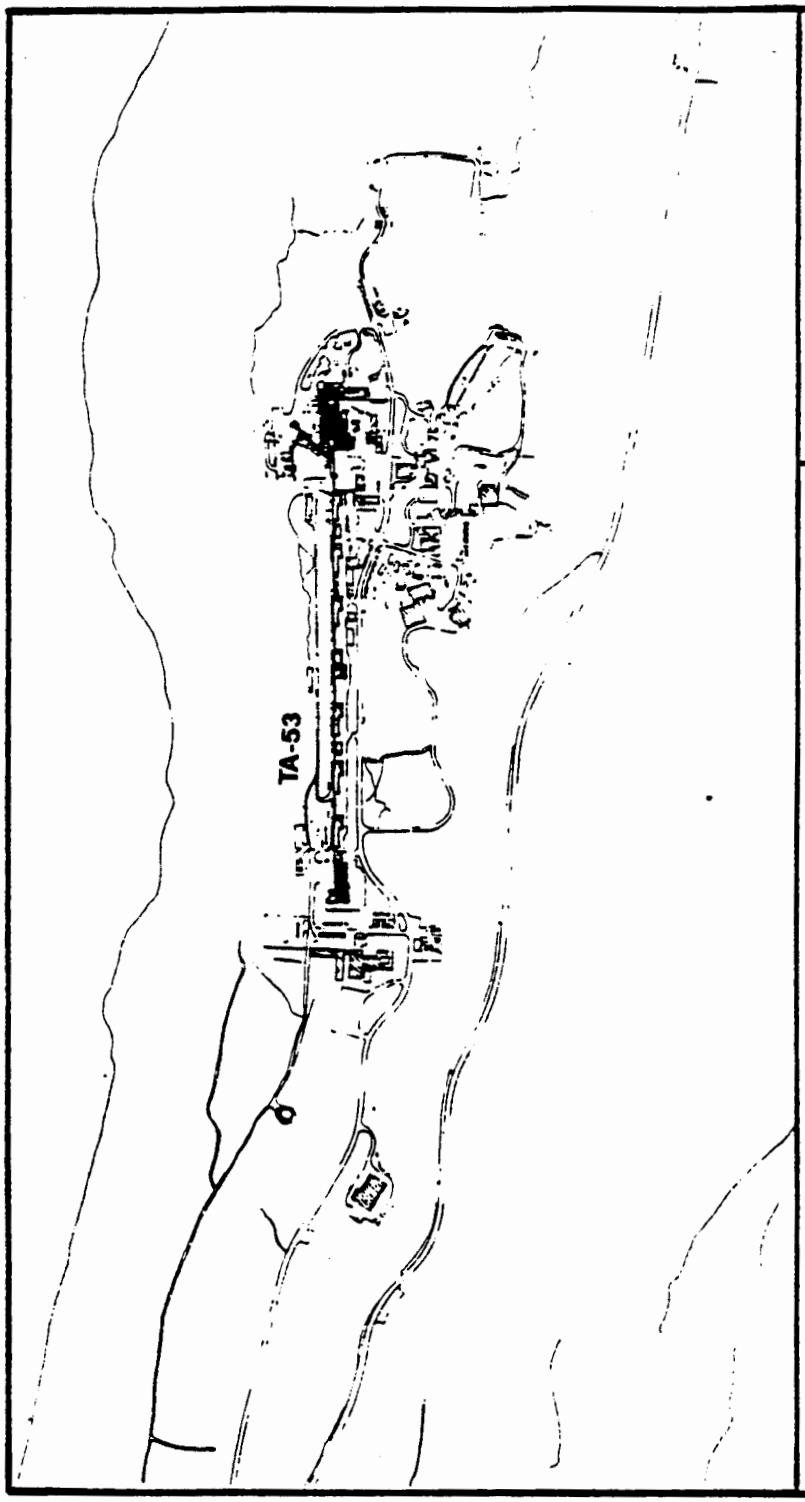
- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 10

PREDECISIONAL DRAFT


TA-46
LEGEND
EXISTING BUILDINGS
TASKS: 31, 32 & 33
TECH AREA IMPACTED: TA-46

SHEET 11

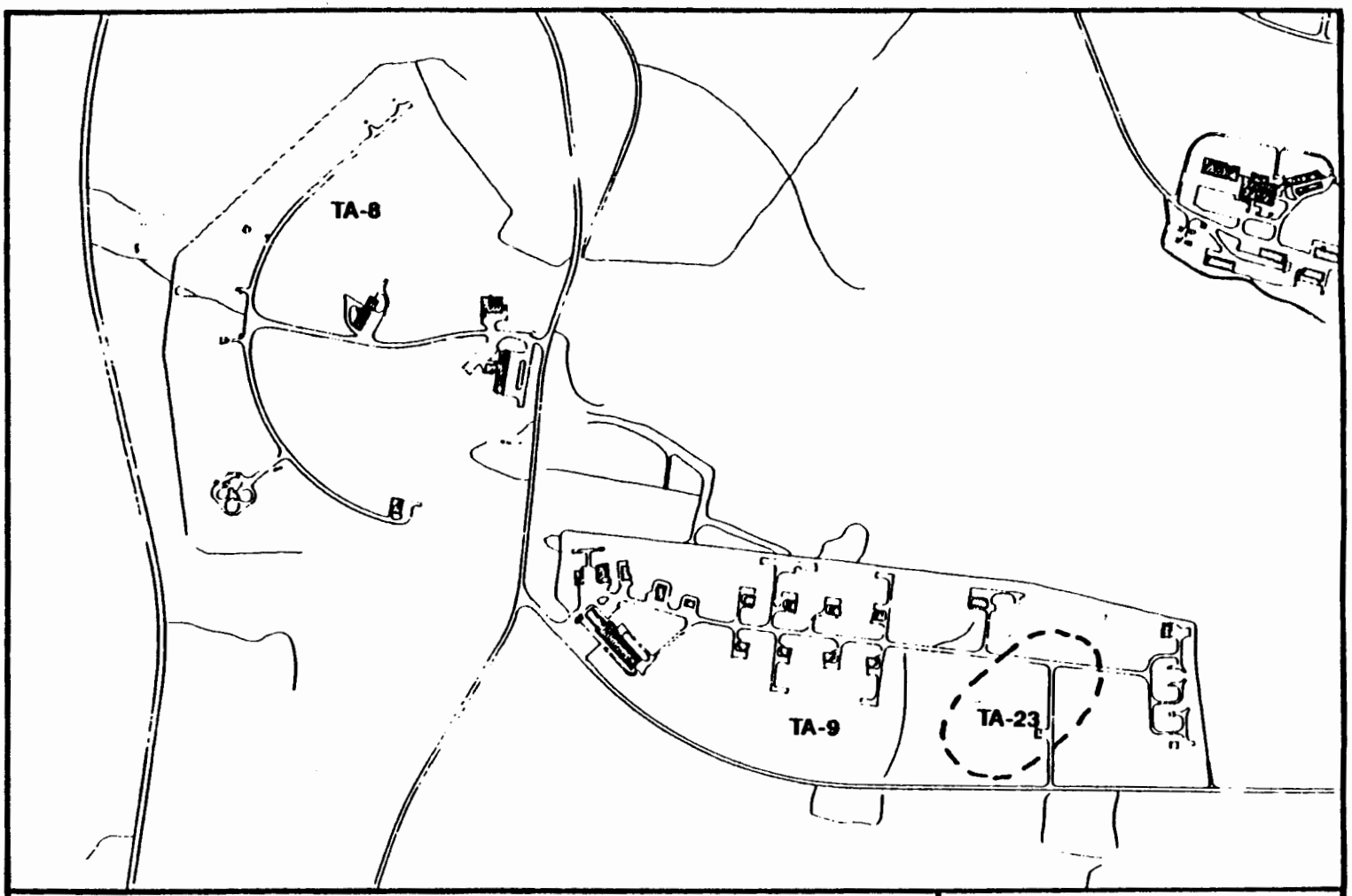


LEGEND

EXISTING BUILDINGS

TASKS: 34 & 35

TECH AREA IMPACTED: TA-53



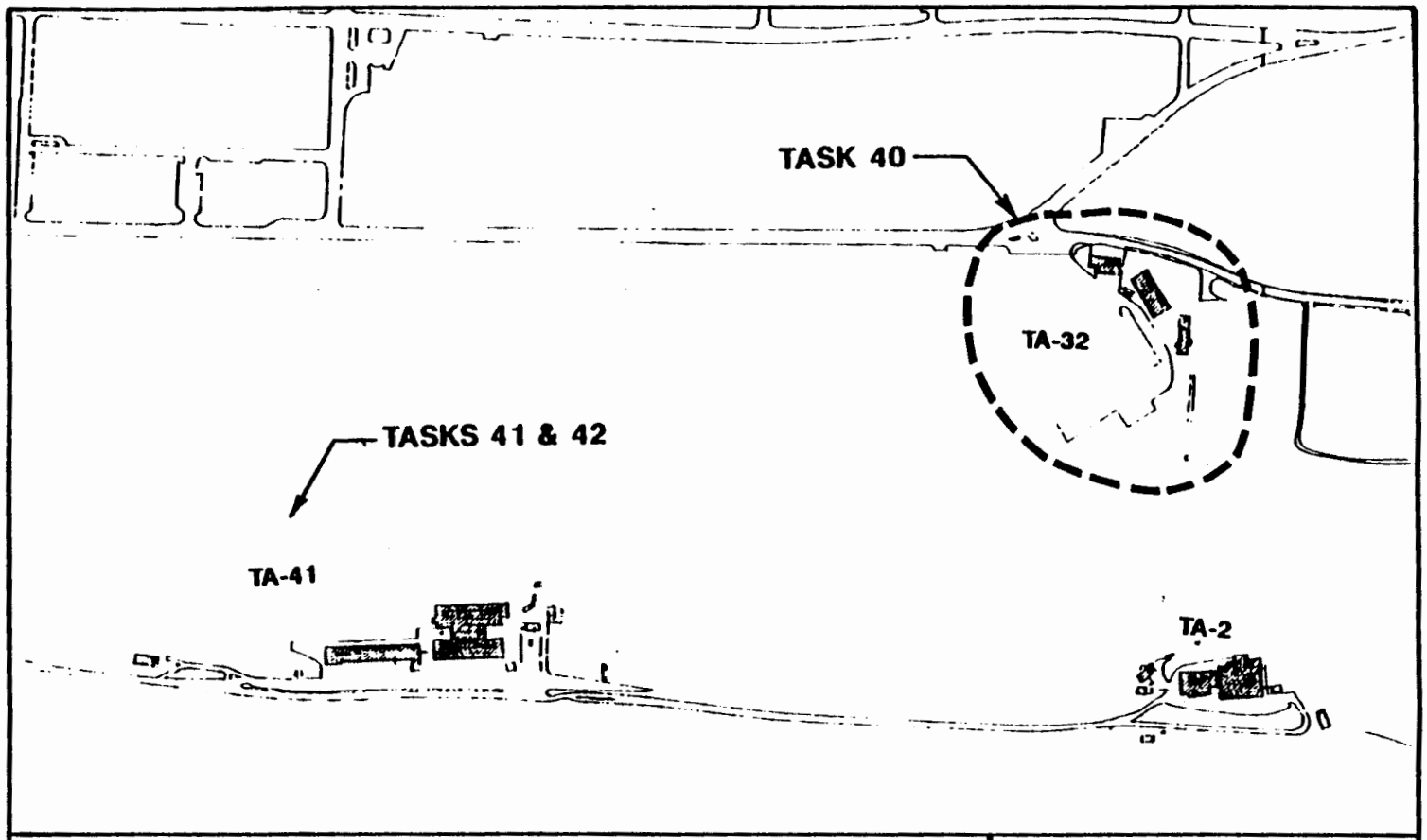
TASKS: 36 & 37

TECH AREAS IMPACTED: TA-8, TA-9, & TA-23

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 13



TASKS: 40; 41 & 42

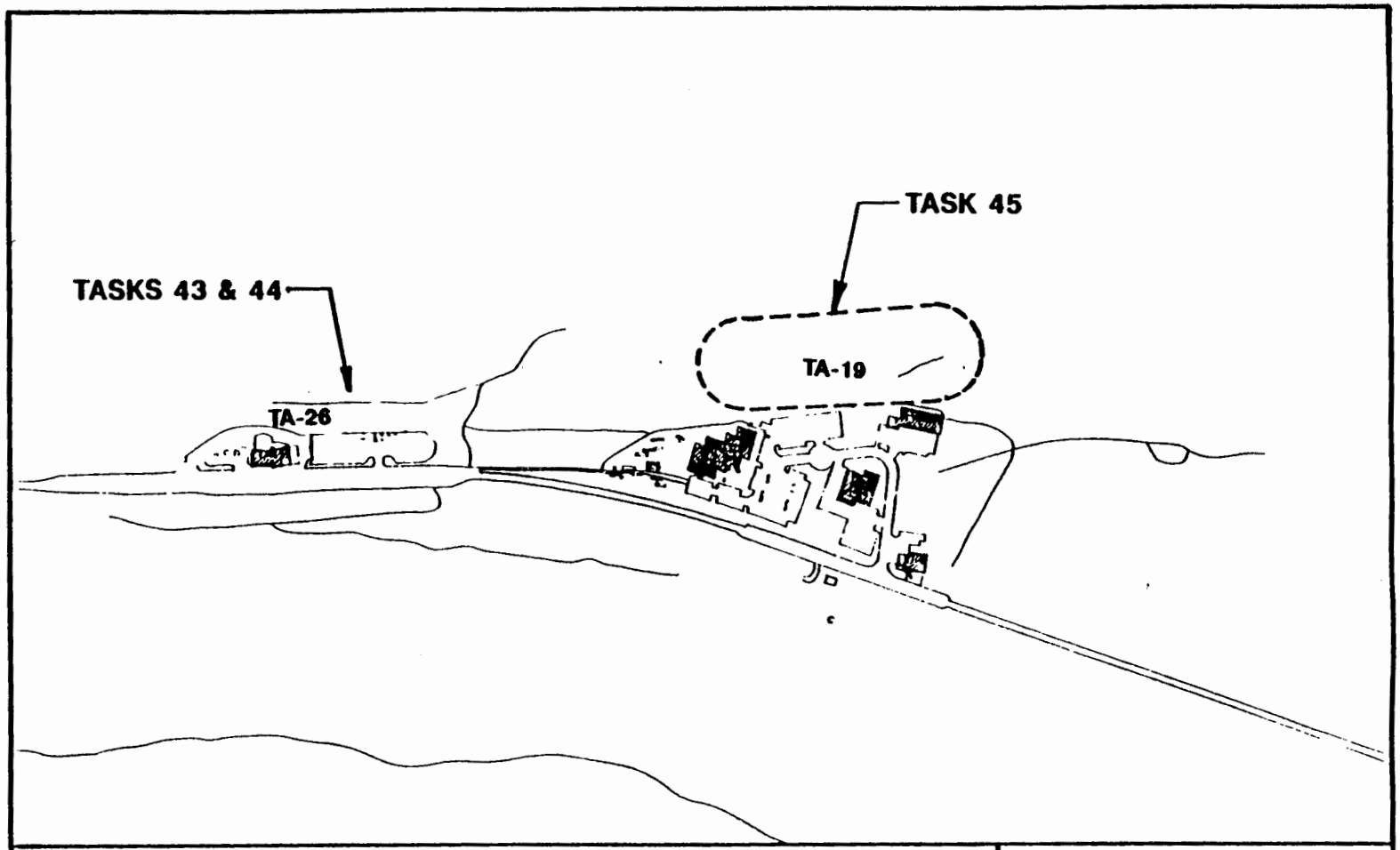
TECH AREAS IMPACTED: TA-2, TA-32, & TA-41

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 14

PREDECISIONAL DRAFT



TASKS: 43 & 44; 45

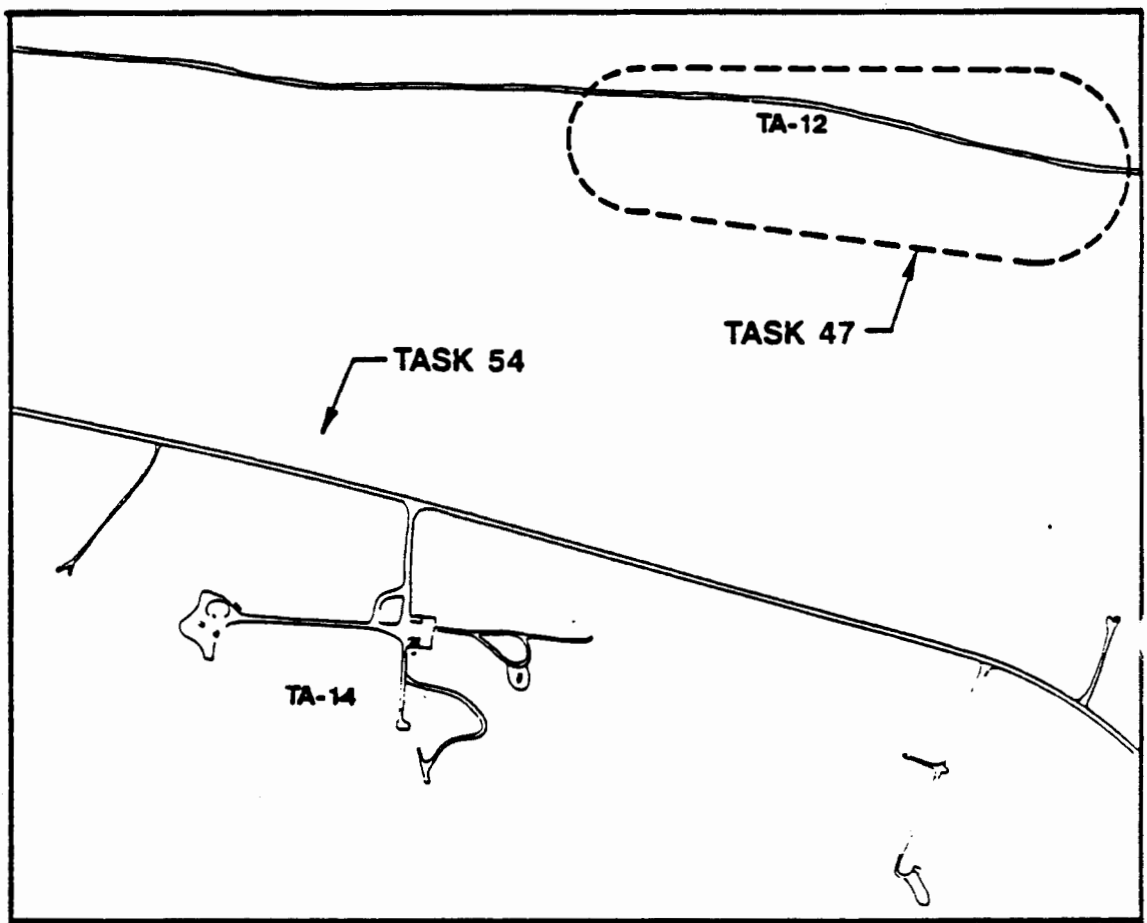
TECH AREAS IMPACTED: TA-19 & TA-26

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS

SHEET 15

PREDECISIONAL DRAFT

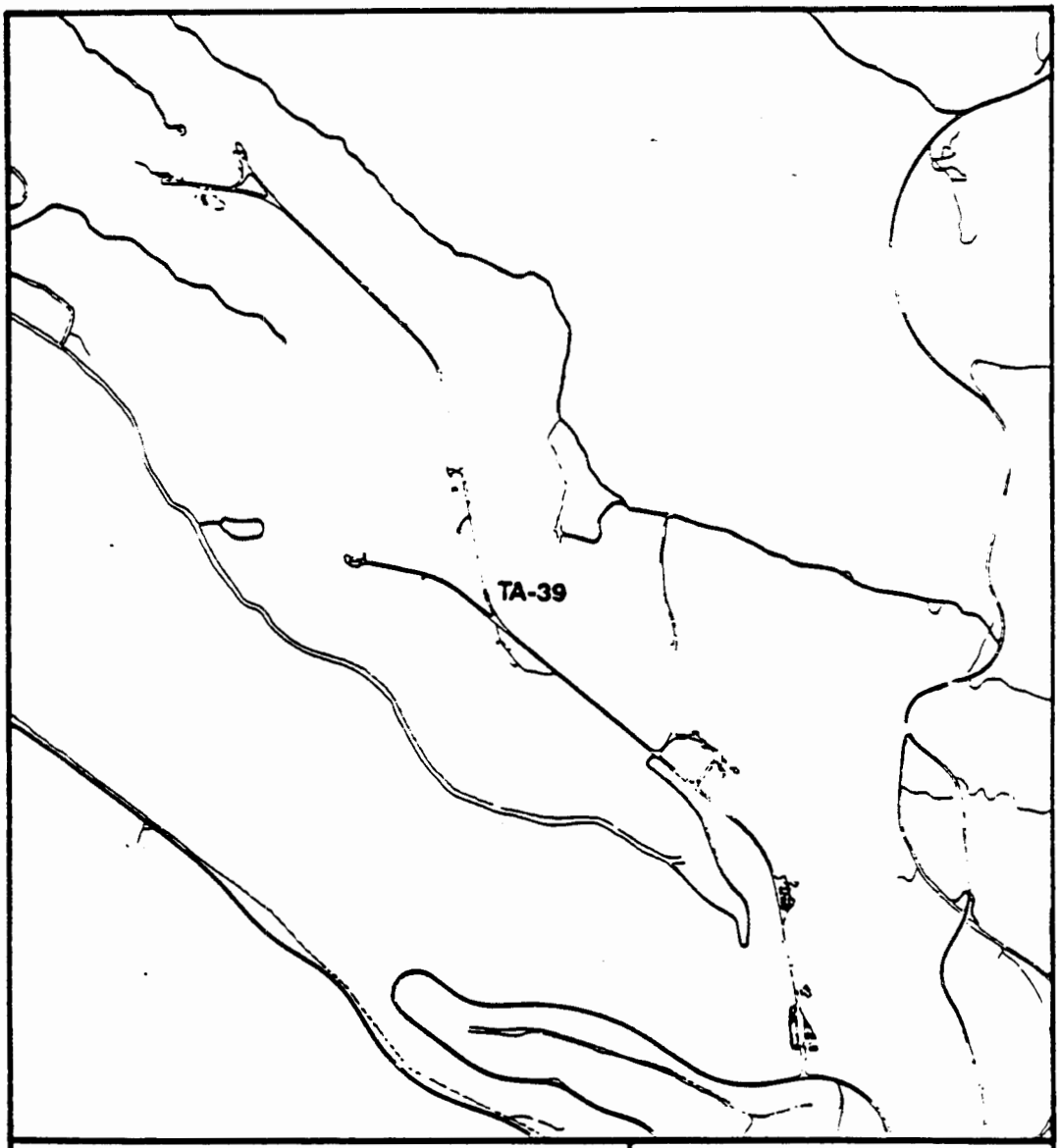


TASKS: 47; 54

TECH AREAS IMPACTED: TA-12 & TA-14

LEGEND

- EXISTING BUILDINGS
- FORMER TECH AREAS



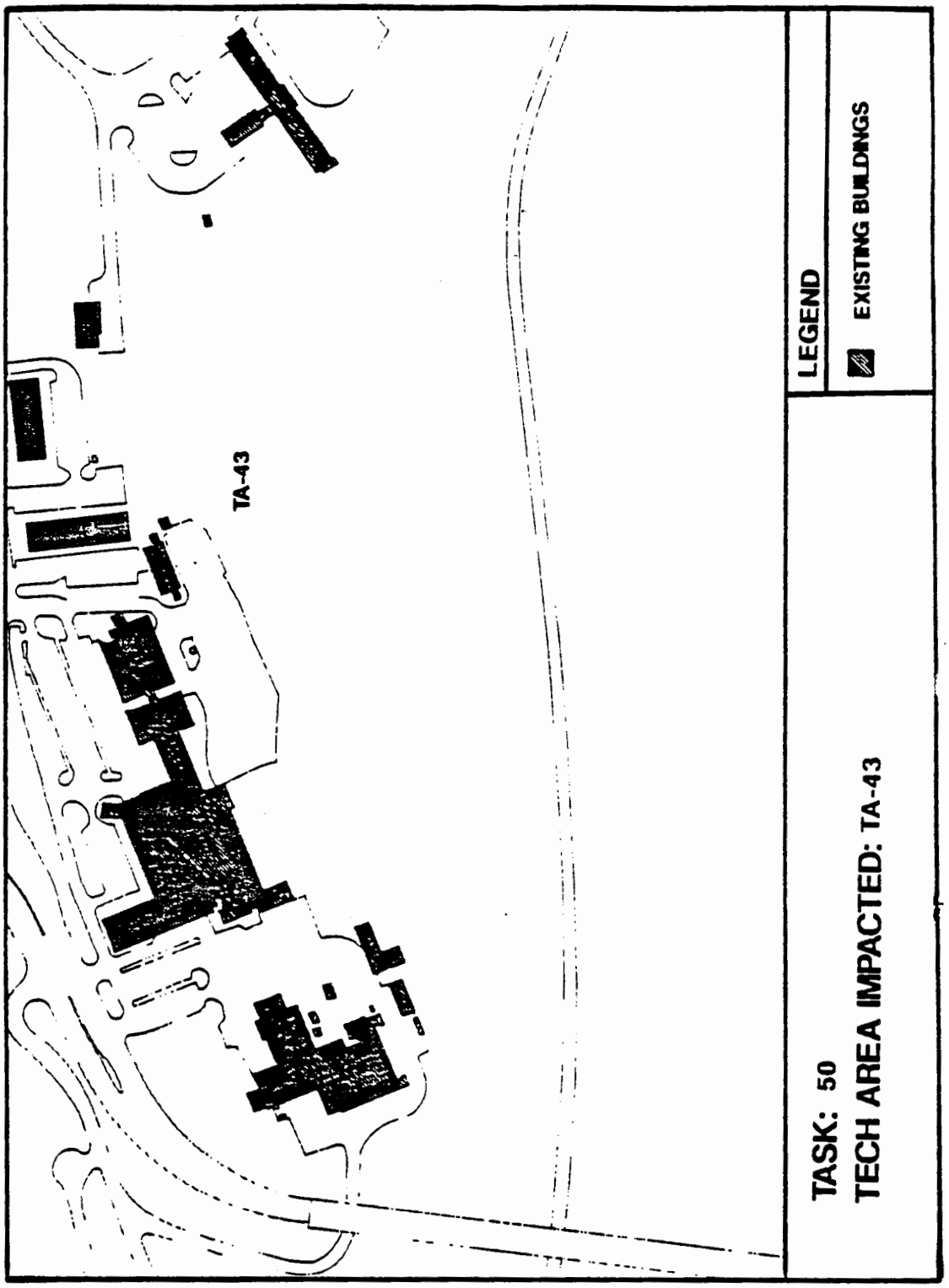
SHEET 17

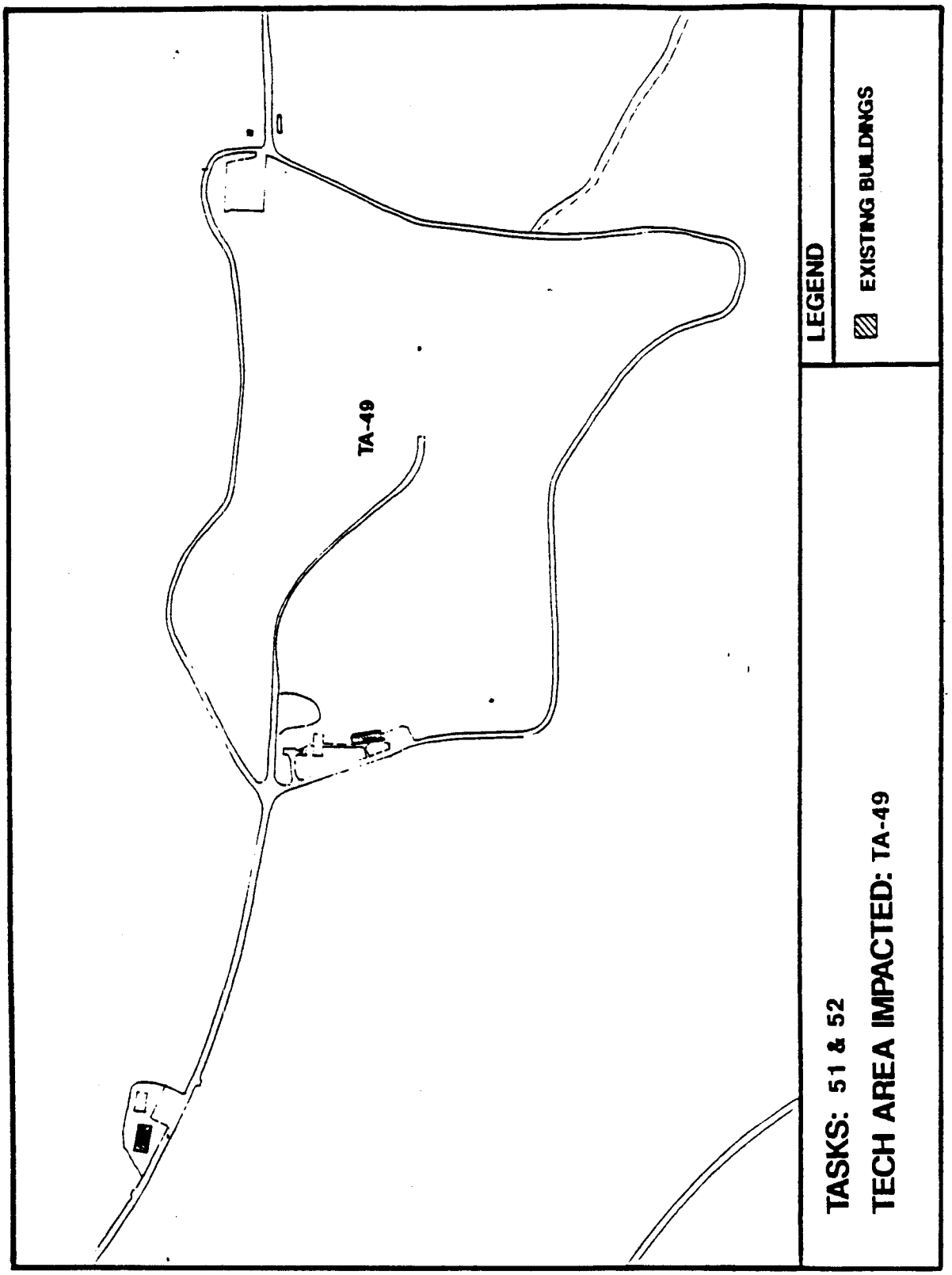
TASK: 48

TECH AREA IMPACTED: TA-39

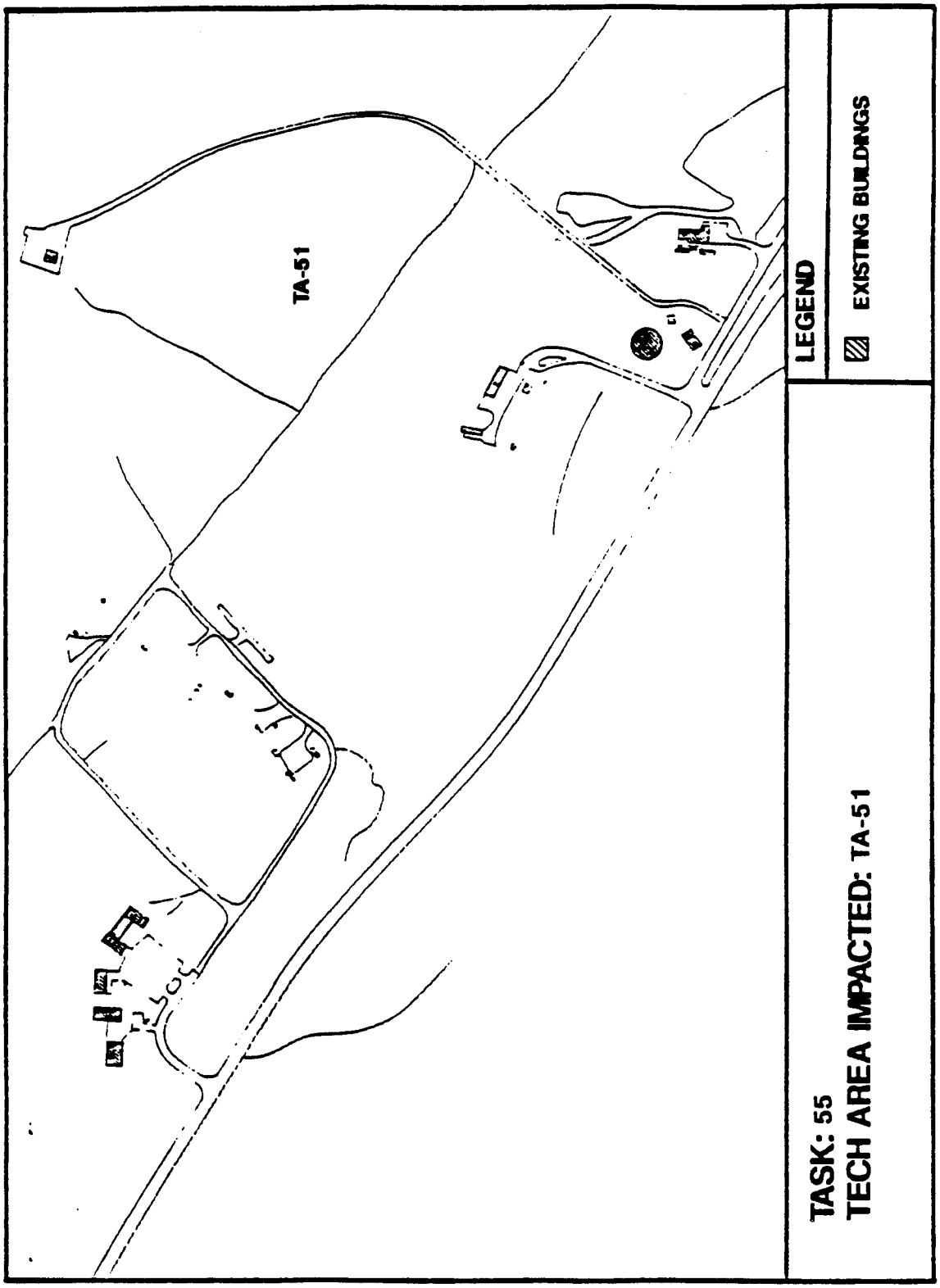
LEGEND

EXISTING BUILDINGS


TA-43
LEGEND
EXISTING BUILDINGS
TASK: 50
TECH AREA IMPACTED: TA-43


TA-49
LEGEND
EXISTING BUILDINGS
TASKS: 51 & 52
TECH AREA IMPACTED: TA-49

SHEET 19


TA-51
LEGEND
EXISTING BUILDINGS
TASK: 55
TECH AREA IMPACTED: TA-51

IEET 20

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - ASSESSMENT ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
221020019	1060	FEASIBILITY STUDY PILOT, ETC., (AL-LA-58)	ER	C/R	1	GF729101	GF11	21420	170	250	800	3400	2000	2000	3000
221020008	1108	TA-21, MATERIAL DISPOSAL AREA T-ASSESS (AL-LA-8-1)	ER	C/R	1	GF729101	GF11	3830	230	200	250	1050	1050	1050	0
221020001	1049	CANYONS (AL-LA-1) ASSESSMENT	ER	C/R	1	GF729101	GF11	3700	20	50	100	1180	1180	1170	0
221020009	1107	TA-21, MAT'LS DISP. AREAS A,B,U,V ASS.(AL-LA-8-2)	ER	C/R	1	GF729101	GF11	3460	200	200	250	940	940	930	0
221020013	1078	TA-1, CONTAM. STRUCTURES TOWNSITE ASSESS(AL-LA-11)	ER	C/R	1	GF729101	GF11	3290	20	100	200	970	1010	990	0
221020016	1144	TA-49, DEEP SUBSURF CONTAM. ASSESS. (AL-LA-51)	ER	C/R	1	GF729101	GF11	2780	110	280	270	360	750	1010	0
221020010	1106	TA-21 SUBSURFACE STRUCTURES ASSESS. (AL-LA-9)	ER	C/R	1	GF729101	GF11	1610	100	100	200	600	610	0	0
221020002	1126	TA-33, MATERIAL DISPOSAL HRENS-ASSESS. (AL-LA- 2)	ER	C/R	1	GF729101	GF11	1430	690	100	100	540	0	0	0
221020020	1079	TA-10 FIRING SITES, STR TOWNSITE ASSESS.(AL-LA-15)	ER	C/R	1	GF729101	GF11	1420	20	100	250	250	800	0	0
221020007	1134	TA-4,5,35,52-ASSESS. (AL-LA-7)	ER	C/R	1	GF729101	GF11	1350	60	100	100	300	790	0	0
221020011	1110	TA-21, OUTFALLS, BLDGS & SPILLS-ASSESS(AL-LA-10-1)	ER	C/R	1	GF729101	GF11	1230	420	100	100	100	510	0	0
221020003	1122	TA-33 BLDGS AND OUTFALLS ASSESS. (AL-LA-3)	ER	C/R	1	GF729101	GF11	1190	60	100	100	500	430	0	0
221020006	1129	TA-35,42,48,55-ASSESS. (AL-LA-6)	ER	C/R	1	GF729101	GF11	1160	60	100	100	300	600	0	0
221020005	1147	TA-50, MATERIAL DISPOSAL AREA C-ASSESS. (AL-LA-5)	ER	C/R	1	GF729101	GF11	1120	60	100	100	300	560	0	0
221020014	1082	TA-11,13,16,24,25 OUTFALLS, ETC., ASSESS(AL-LA-12)	ER	C/R	1	GF729101	GF11	1120	60	100	200	200	560	0	0
221020017	1145	TA-49, SURFACE STRUCTURES ASSESSMENT (AL-LA-52)	ER	C/R	1	GF729101	GF11	1060	90	150	150	150	140	380	0
221020015	1089	TA-15, FIRING PTS A, B,G,DAHRT ASSESS. (AL-LA-22)	ER	C/R	1	GF729101	GF11	1000	430	80	90	200	200	0	0

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

ENVIRONMENTAL REST & WASTE MGMT
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - ASSESSMENT ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
221020059	1117	TA-31 CONTAM AREAS ASSESSMENT (AL-LA-49)	ER	C/R	1	GF729101	GF11	840	20	210	200	200	210	0	0
221020051	1138	TA-45 INDUS. LIQ. WASTE TR. PLT. ASSESS (AL-LA-53)	ER	C/R	1	GF729101	GF11	840	40	200	200	200	200	0	0
221020044	1119	TA-32 CONTAM AREAS & STRUC ETC. ASSESS (AL-LA-40)	ER	C/R	1	GF729101	GF11	840	20	100	200	200	320	0	0
221020048	1096	TA-19 CONTAM STRUC. ASSESSMENT (AL-LA-45)	ER	C/R	1	GF729101	GF11	840	30	150	200	200	260	0	0
221020047	1112	TA-26 CONTAM AREAS ASSESS (AL-LA-43)	ER	C/R	1	GF729101	GF11	840	30	150	200	200	260	0	0
221020031	1072	TA-0 TOWNSITE AREAS ETC. ASSESS (AL-LA-27)	ER	C/R	1	GF729101	GF11	840	40	100	200	200	300	0	0
221020030	1073	TA-0, TOWNSITE AREAS ETC. ASSSESS. (AL-LA-26)	ER	C/R	1	GF729101	GF11	840	20	100	200	200	320	0	0
221020029	1071	TA-0 AREAS, FIR. RANGES ETC. ASESS. (AL-LA-25)	ER	C/R	1	GF729101	GF11	840	50	100	200	200	290	0	0
221020004	1125	TA-33 SUBSURFACE STRUCTURES ASSESS. (AL-LA-4)	ER	C/R	1	GF729101	GF11	710	20	100	100	300	190	0	0
* Subtotal *								59600	3070	3420	5060	13240	14480	7530	3000
* PRIORITY: 2															
231020002	1152	TA-54 AREAS L & H CLOSURE REMEDIATION (AL-LA-RC-6)	ER	R	2	GF728902	GF11	49690	0	660	3310	3560	4170	4520	2830
221020055	1066	NEPA DOCUMENTATION ASSESSMENT (AL-LA-59)	ER	C/R	2	GF729101	GF11	7250	0	400	1200	800	800	800	3250
221020049	1153	TA-54 MAT'L DISP. AREAS L,H,G,J ASSESS (AL-LA-46)	ER	C/R	2	GF729101	GF11	2340	60	0	0	0	0	0	1140
221020040	1157	TA-8,9 FIRING SITES, ETC. ASSESS. (AL-LA-36)	ER	C/R	2	GF729101	GF11	1380	40	0	0	0	0	200	200
221020027	1086	TA-15 FIR.SITES BURN AREAS, ETC., ASSESS(AL-LA-23)	ER	C/R	2	GF729101	GF11	1250	20	0	0	0	40	200	200
221020026	1115	TA-3,59 CONTAM. STRUC. AREAS ASSESS. (AL-LA-21)	ER	C/R	2	GF729101	GF11	1220	60	0	0	0	40	200	200
221020018	1062	INTERIM REMDIAL MEASURES ETC. ASSESS. (AL-LA-57)	ER	C/R	2	GF729101	GF11	900	0	150	150	150	150	150	150
221020045	1099	TA-2,41 CONTAM AREAS & BLD. ASSESS (AL-LA-41)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020054	1154	TA-57 FENTON HILL SITE ASSESS (AL-LA-56)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - ASSESSMENT ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
221020032	1155	TA-6,22,40 CONTAM AREA ASSESS. (AL-LA-28)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	40	200	200
221020043	1130	TA-36 CONTAM AREAS ASSESSMENT (AL-LA-39)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020042	1131	TA-36, FIRING SITES, PITS ASSESS. (AL-LA-38)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020037	1140	TA-46, CONTAM STRUC & AREAS ASSESS (AL-LA-33)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020050	1084	TA-12 FIRING SITES STURC. ASSESS. (AL-LA-47)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020053	1148	TA-51 WASTE DRUMS & DEBRIS ASSESS. (AL-LA-55)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020052	1085	TA-14 FIRING SITES ASSESSMENT (AL-LA-54)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020038	1100	TA-20,53, PITS, ETC., ASSESS. (AL-LA-34)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020046	1098	TA-2 PITS, CONTAM AREAS ASSESS (AL-LA-42)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020058	1132	TA-39 FIR. SITES MAT'L DISP AREA ASSESS (AL-LA-48)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020039	1149	TA-53 OUTFALLS, DISP. PIT ASSESS. (AL-LA-35)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020021	1095	TA-18,27 CONTAM. BLD, ETC. ASSESSMENT (AL-LA-16)	ER	C/R	2	GF729101	GF11	840	20	0	0	100	90	110	520
221020034	1111	TA-22,40 CONTAM AREAS & STRUC. ASSESS. (AL-LA-30)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020028	1088	TA-15 PROCESS AREAS ASSESSMENT, (AL-LA-24)	ER	C/R	2	GF729101	GF11	840	20	0	0	0	40	200	200
221020056	1083	TA-11,15,24 FIRING SITES ASSESS. (AL-LA-13)	ER	C/R	2	GF729101	GF11	840	20	0	0	100	90	110	520
221020036	1142	TA-46, LANDFILL CONTAM STRUC ASSESS (AL-LA-32)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020033	1156	TA-6,7,22,40 CONTAM AREA ASSESS (AL-LA-29)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	40	200	200
221020035	1141	TA-46, LAGOONS, OUTFALLS ASSESS (AL-LA-31)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	200	200
221020041	1158	TA-8,9,23 PITS, ETC. ASSESS. (AL-LA-37)	ER	C/R	2	GF729101	GF11	840	40	0	0	0	0	200	200
221020060	1136	TA-43 OUTFALLS ASSESSMENT (AL-LA 50)	ER	C/R	2	GF729101	GF11	840	30	0	0	0	0	0	300
221020057	1092	TA-16, TA-25 PONDS, PITS, TANKS ASSESS (AL-LA-14)	ER	C/R	2	GF729101	GF11	830	20	0	0	100	90	110	510

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

ENVIRONMENTAL REST. & WASTE M&MT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - ASSESSMENT ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
221020025	1114	TA-3,59 CONTAM. STRUC. AREAS ASSESS. (AL-LA-20)	ER	C/R	2	GF729101	GF11	810	60	0	0	0	40	200	200
221020024	1116	TA-3,59, CONTAM STRUC. & AREAS ASSESS. (AL-LA-19)	ER	C/R	2	GF729101	GF11	810	60	0	0	0	40	200	200
221020022	1094	TA-18,27 CONTAM BLD SUBSURF STRU ASSESS (AL-LA-17)	ER	C/R	2	GF729101	GF11	810	20	0	0	100	80	110	500
221020023	1093	TA-18,27 CONTAM BLD ETC. ASSESS. (AL-LA-18)	ER	C/R	2	GF729101	GF11	810	20	0	0	0	40	200	200
221020012	1109	TA-21, OUTFALLS, BLDGS & SPILLS ASSESS(AL-LA-10-2)	ER	C/R	2	GF729101	GF11	810	100	80	80	80	470	0	0
* Subsubtotal *								87390	1100	1290	4740	4990	6260	9110	15620
** Subtotal **								146990	4170	4710	9800	18230	20740	16640	18620

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Assessment
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-1 Canyons	October 1988	September 1994
AL-LA-2 TA-33 Material Disposal areas	October 1988	September 1992
AL-LA-3 TA-33 Buildings and Outfalls	October 1988	September 1993
AL-LA-4 TA-33, subsurface structures	October 1988	September 1993
AL-LA-5 TA-50, Material Disposal Area C	October 1988	September 1993
AL-LA-6 TA-35, 42, 48, 55	October 1988	September 1993
AL-LA-7 TA-4, 5, 35, 52	October 1988	September 1993
AL-LA-8-1 Material Disposal Area T, TA-21	October 1988	September 1994
AL-LA-8-2 TA-21, Material Disposal Areas	October 1988	September 1994
AL-LA-9 TA-21, subsurface structures	October 1988	September 1993
AL-LA-10-1 TA-21, outfalls, spills	October 1988	September 1993
AL-LA-10-2 TA-21, Incinerators, contaminated areas	October 1988	September 1993

PREDECISIONAL DRAFT
Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Assessment
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-11 TA-1 Townsite	October 1988	September 1994
AL-LA-12 TA-11, 13, 16, 24, 25, outfalls, sumps, septic systems	October 1988	September 1993
AL-LA-13 TA-11, 13, 16, 24, 25, firing sites, structures	October 1991	September 1995
AL-LA-14 TA-16, ponds, pits tanks	October 1991	September 1995
AL-LA-15 TA-10 Townsite	October 1988	September 1993
AL-LA-16 TA-18, 27	October 1991	September 1995
AL-LA-17 TA-18, 27	October 1991	September 1995
AL-LA-18 TA-18, 27	October 1992	TBD
AL-LA-19 TA-3, 59	October 1992	TBD
AL-LA-20 TA-3, 59	October 1992	TBD
AL-LA-21 TA-3, 59	October 1992	TBD
AL-LA-22 TA-15, firing points A, B, G and DARHT	October 1989	September 1993

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Assessment
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-23 TA-15, firing site, burn areas, buildings	October 1992	TBD
AL-LA-24 TA-15, process areas	October 1992	TBD
AL-LA-25 Townsite areas	October 1988	September 1993
AL-LA-26 Townsite areas	October 1988	September 1993
AL-LA-27 Townsite areas	October 1988	September 1993
AL-LA-28 TA-6, 7, 22, 40	October 1992	TBD
AL-LA-29 TA-6, 7, 22, 40	October 1992	TBD
AL-LA-30 TA-22, 40	October 1993	TBD
AL-LA-31 TA-46	October 1993	TBD
AL-LA-32 TA-46	October 1993	TBD
AL-LA-33 TA-46	October 1993	TBD
AL-LA-34 TA-20, 53	October 1993	TBD
AL-LA-35 TA-53	October 1993	TBD
AL-LA-36 TA-8, 9	October 1993	TBD

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Assessment
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-37 TA-8, 9l, 23	October 1993	TBD
AL-LA-38 TA-36	October 1994	TBD
AL-LA-39 TA-36	October 1994	TBD
AL-LA-40 TA-32	October 1988	September 1993
AL-LA-41 TA-2, 41	October 1994	TBD
AL-LA-42 TA-2	October 1994	TBD
AL-LA-43 TA-26 (Task 44 deleted)	October 1989	September 1993
AL-LA-45 TA-19	October 1988	September 1993
AL-LA-46 TA-54	October 1994	TBD
AL-LA-47 TA-12	October 1994	TBD
AL-LA-48 TA-39	October 1994	TBD
AL-LA-49 TA-31	October 1988	September 1993
AL-LA-50 TA-43	October 1994	TBD
AL-LA-51 Task 49, deep subsurface	October 1988	September 1994

PREDECISIONAL DRAFT

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Assessment
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-52 TA-49 surface structures	October 1988	September 1994
AL-LA-53 TA-45	October 1988	Septemaber 1993
AL-LA-54 TA-14	October 1994	TBD
AL-LA-55 TA-51	October 1994	TBD
AL-LA-56 TA-57	October 1994	TBD
AL-LA-57 Interim Remedial measures (RD/RA)	October 1989	September 1995
AL-LA-58 Feasibility Study Pilot (RI/FS)	October 1988	TBD
AL-LA-59		
NEPA	October 1988	September 1995

[1]"A" indicates actual dates.
[2]All RCRA Closure Plan finish dates will be ultimately determined by state regulatory agency.

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ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION

ACTIVITY DATA SHEETS

LOS ALAMOS NATIONAL LABORATORY

ASSESSMENT

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1049-01/06-30
7. ACTIVITY NO: 2.2.1.02.0001
8. ACTIVITY TITLE: Canyons (AL-LA-1) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	50	100	1180	1180	1170	
Capital:							
Construction							
Equipment							
GPP							
Total	20	50	100	1180	1180	1170	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,700K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of the potential impacts to fifteen major Los Alamos canyons. The canyon effort addresses the impact to the watershed and to the Rio Grande as well as the shallow alluvial aquifers in each canyon. Facilities on top of the mesas may impact the canyons from outfalls along the canyon rims. Some facilities and firing sites are located in the canyons. There are sixteen potential release sites (mainly effluent receiving areas) with radioactive, beryllium, unexploded ordnance, heavy metals, and high explosive contaminants. Most contamination is expected to be very low level and, therefore, limited removal and institutional controls would be sufficient remediation. It is unlikely that soils and alluvium would be removed and disposed of offsite as mixed or hazardous wastes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 based on regulations (see Number 11 above) and because it is a currently funded, ongoing activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) RI/FS completed for White Rock Y Interchange (portions of Los Alamos and Bayo Canyons) (August 1987).

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

PREPARED/REVIEWED BY (SITE OFFICE):	ORGANIZATION:	DATE:
John M. Puckett	LANL	4/29/89
PREPARED/REVIEWED BY (AREA OFFICE):	**ORGANIZATION:**	**DATE:**
J. A. Pruemo	DOE/LAAO	4-28-89
PREPARED/APPROVED BY (TASK GROUP LEADER):	**ORGANIZATION:**	**DATE:**
Michael F. Lee	DOE/AL	4/28/89
PREPARED/REVIEWED BY (AL TASK GROUP STUDY CHAIR):	**ORGANIZATION**	**DATE:**
Patrick J. Higgins Jr.	DOE/AL/OCAO	4/28/89

Sign-off Sheet Covers all ADS Sheets

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
OPER: GF-72-91-01
CE:
CONST:
5b. OLD B&R CODE:
OPER: GF-11
CE:
CONST:
6. IDENTIFICATION NO: AL-1060-01/06-30
7. ACTIVITY NO: 2.2.1.02.0019
8. ACTIVITY TITLE: Feasibility Study Pilot for Landfill Assessment and Cover Design for Material Disposal Areas (AL-LA-58) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	170	250	800	3400	2000	2000	3000
Capital:							
Construction							
Equipment							
GPP							
Total	170	250	800	3400	2000	2000	3000
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $21,420K

14. KEY WORDS: CERCLA RI/FS Pilot Studies

15. ACTIVITY DESCRIPTION:

This task consists of developing and demonstrating the feasibility of capping of Los Alamos Material Disposal Areas for in-place stabilization of sites to avoid other more costly remediation techniques. Inherent in the design of any cover system is the need to control water movement, and only through an understanding of the conceptual geologic-hydrologic framework of an area can sufficient knowledge be employed to optimize designs. This understanding of spatial and temporal variation in recharge and groundwater travel time is important in performance assessment for regulatory compliance. The landfill cover design is based on the ability to control water movement away from the wastes for a specified time period under a given climatic regime. Optimal designs will require data across elevational gradients at Los Alamos because waste sites are located throughout the complex. The monitoring and analysis of an existing pilot cover study at Area B, TA-21 (TRU waste burial site) will be completed. These data will then be used to design and emplace full-scale pilot studies at Areas E and F. Any assessment activity must account for various waste forms that may potentially migrate from a site. Factors such as co-contaminant transport of mixed waste or sorption of waste can alter the design requirements for a cover system. Data developed from studies on the hydrologic system and waste form behavior will be integrated with cover design specifications to form an integrated assessment-remedial action tool.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RI/FS Pilot Studies	October 1988
Finish of RI/FS Pilot Studies	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

As described in 15 above, pilots are necessary at LA to demonstrate remediation and assessment technologies for arid/semiarid climates for TRU and mixed wastes. LANL has about 80% of its buried waste as TRU and mixed wastes. Exhumation is probably too expensive and has a high risk.

18. PRIORITY RATIONALE:

Priority 1 because improved assessment technology is critical to effective remediation alternative determination, and this is a currently funded, ongoing activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is low.

20. ACCOMPLISHMENTS TO DATE:

(1) Long standing state-of-the-art environmental and risk modelling capability exists at LANL (HSE-8, HSE-1, HSE-12, ESS-3, etc.); and
(2) Area B (old TRU waste site) study currently in place requires enhanced funding for data analysis, assessment, and continued long-term monitoring.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1062-01/06-30
7. ACTIVITY NO: 2.2.1.02.0018
8. ACTIVITY TITLE: Interim Remedial Measures at Contaminated Sites and Underground Tanks (AL-LA-57) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		150	150	150	150	150	150
Capital:							
Construction							
Equipment							
GPP							
Total		150	150	150	150	150	150
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $900K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

Currently four potential release sites exist where contamination could be transported by erosion and runoff processes resulting in deterioration of conditions, especially at old waste disposal locations. These sites comprise an area of approximately 1.1 acres. In the past, similar remedial actions have been carried out by the interim waste management program addressing old radioactive waste disposal sites. There will be a continuing need for such actions at other sites. Many old underground tanks also require removal on a continual basis.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1989
Finish of RFI/CMS and RI/FS	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. In the RCRA RFA, EPA identified sites requiring corrective action. LANL will have a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is low.

20. ACCOMPLISHMENTS TO DATE:

None.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1066-01/06-30
7. ACTIVITY NO: 2.2.1.02.0055
8. ACTIVITY TITLE: NEPA Documentation (AL-LA-59) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: NEPA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		400	1200	800	800	800	3250
Capital:							
Construction							
Equipment							
GPP							
Total		400	1200	800	800	800	3250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $7,250K

14. KEY WORDS: NEPA

15. ACTIVITY DESCRIPTION:

At least five EAs or EISs are proposed for NEPA compliance at LANL during the RI/FS process.

16. MILESTONE SCHEDULE (by fiscal year):

Start of NEPA Documents	October 1988
Finish of NEPA Documents	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generating five EAs for the LA remedial activities efforts.

18. PRIORITY RATIONALE:

Priority 2 based on lower priority regulation schedule. DOE guidance requires NEPA must be completed before RD/RA and RCA can occur under CERCLA/SARA or RCRA.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is low.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
OPER: GF-72-91-01
CE:
CONST:
5b. OLD B&R CODE:
OPER: GF-11
CE:
CONST:
6. IDENTIFICATION NO: AL-1071-01/06-30
7. ACTIVITY NO: 2.2.1.02.0029
8. ACTIVITY TITLE: TA-0, Townsite Areas, Firing Ranges, Contaminated Structures (AL-LA-25) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	50	100	200	200	290		
Capital:							
Construction							
Equipment							
GPP							
Total	50	100	200	200	290		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists buried gunmounts (North Mesa), Tank Mesa disposal area, townsite firing range, airport incinerator buildings and canyon debris area, impact areas from Army ordnance, concrete covered pits, and contaminated structures. About six acres are associated with these structures and areas. Possible contaminants are uranium, heavy metals, unexploded ordnance, and organic chemicals. Potential remedial actions may range from selected removal of small volumes to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1073-01/06-30
7. ACTIVITY NO: 2.2.1.02.0030

8. ACTIVITY TITLE: TA-0, Townsite Areas, Material Disposal Areas (AL-LA-26) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	100	200	200	320		
Capital:							
Construction							
Equipment							
GPP							
Total	20	100	200	200	320		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of Mortandad Canyon Material Disposal Area; and airport landfill and burning area. Townsite areas are mostly isolated sites now belonging to the private sector, Forest Service, or Los Alamos County. About 2.6 acres are associted with these areas. Possible contaminants are uranium, organic chemicals, and high explosives. Potential remedial actions range from selected removal followed by institutional controls to the less likely removal and disposal alternatives for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1072-01/ 06-30

7. ACTIVITY NO: 2.2.1.02.0031

8. ACTIVITY TITLE: TA-0, Townsite Areas, Contaminated Structures (AL-LA-27) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	40	100	200	200	300		
Capital:							
Construction							
Equipment							
GPP							
Total	40	100	200	200	300		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of sanitary sewer plants, airport bunkers, buildings, incinerator, waste lines and associated structures, and tank farm contaminated areas. Townsite areas are mostly isolated sites now belonging to the private sector, Forest Service, or Los Alamos County. Many structures are only known from early aerial surveys. About eight acres are associated with these structures and areas. Contaminants may be radionuclides, organic chemicals, and heavy metals. Possible remedial action includes selected removal of small volumes or, less likely, removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1078-01/06-30

7. ACTIVITY NO: 2.2.1.02.0013

8. ACTIVITY TITLE: TA-1, Contaminated Areas, Structures--Townsite (AL-LA-11) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	100	200	970	1010	990	
Capital:							
Construction							
Equipment							
GPP							
Total	20	100	200	970	1010	990	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,290K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of potential surface and subsurface contaminated areas, which include hillside surface contamination, disposal areas, acid sewer lines, manholes, septic tanks, storm drains, and outfalls. TA-1 was the original uranium and plutonium processing area where the first atomic weapons were fabricated during WWII at the current Los Alamos Townsite. Most of the structures have been removed and extensive decommissioning and decontamination have been done throughout the sites. Some underground structures and contaminated soil may remain in the townsite, even after extensive and thorough decommissioning and decontamination efforts were done. About 80 acres (owned by DOE, Los Alamos County, and private owners) may still contain residual plutonium, uranium, fission product, and organic chemical contamination. Remediation is expected to be selected removal of small volumes followed by institutional controls and, less likely, removal and disposal of small volumes associated with deep underground structures.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 based on regulations (see 11 above) and 1974-76 data from D&D where levels of radioactive contamination left in place deep subsurface pose very small risk to public. Current ongoing, funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1079-01/06-30
7. ACTIVITY NO: 2.2.1.02.0020
8. ACTIVITY TITLE: TA-10,Firing Sites, Structures—Townsite (AL-LA-15) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	100	250	250	800		
Capital:							
Construction							
Equipment							
GPP							
Total	20	100	250	250	800		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,420K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of firing sites, detonation sites, tanks, disposal pit, landfill, and decommissioned building areas. TA-10 contained a series of firing sites, radiochem lab, and fission product burial sites. It has been decontaminated and decommissioned and transferred to Los Alamos County with restricted use agreements. TA-10 is located in Bayo Canyon. About 5 acres with potential contaminants including uranium, strontium-90, high explosives, acids, heavy metals, beryllium, and organic chemicals will be investigated under the RI/FS. Possible remediation ranges from limited removal followed by institutional controls to the less likely case of removal and disposal for the disposal pits.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1082-01/06-30
7. ACTIVITY NO: 2.2.1.02.0014

8. ACTIVITY TITLE: TA-11, 13, 16, 24, 25, Outfalls, Sumps, Septic System (AL-LA-12) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60	100	200	200	560		
Capital:							
Construction							
Equipment							
GPP							
Total	60	100	200	200	560		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,120K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of outfalls, sumps, sump pits, septic tanks, drain lines, and waste tanks. TA-11 was originally used for weapon mockup testing at various firing sites and now is used for high explosives drop tests. TA-13 was originally used for X-ray work with explosive testing and is currently part of TA-16. TA-16 produces, tests, and assembles high explosive components for weapons R&D. There are about 200 structures at TA-16. TA-24 (T-site) was originally a service area for X-ray examination of high explosive and for high explosive storage; it is now nonoperational and part of TA-16. TA-25 (V-site) was also a high explosive process area and is now nonoperational and part of TA-16. Outfall areas cover about 5 acres at these tech areas with potential contaminants of high explosives, organic chemicals, and heavy metals. Most sites are expected to require selected removal of small volumes and are less likely to be remediated by removal and disposal of larger volumes. The remaining potentially contaminated structures cover about 1 acre and are expected to be remediated using selected removal followed by institutional controls with removal and disposal of large volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 based on regulations (see 11 above) and because it is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1083-01/06-30

7. ACTIVITY NO: 2.2.1.02.0056

8. ACTIVITY TITLE: TA-11, 13, 15, 24, Firing Sites, Structures (AL-LA-13) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20			100	90	110	520
Capital:							
Construction							
Equipment							
GPP							
Total	20			100	90	110	520
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of filter/drying beds, burn areas, open landfills, burning pits, firing sites, operational releases, gunfiring sites, boneyards, covered landfill, contaminated areas, structures, and Material Disposal Area R. TA-11 was originally used for weapon mockup testing at various firing sites and now is used for high explosive (HE) drop tests. TA-13 was originally used for X-ray work with explosive testing and is currently part of TA-16. TA-16 produces, tests, and assembles HE components for weapons R&D. There are about 200 structures at TA-16. TA-24 (T-site) was originally a service area for X-ray examination of HE and for HE storage; it is now nonoperational and part of TA-16. TA-25 (V-site) was also an HE process area and is now nonoperational and part of TA-16. These potential release sites cover about 27 acres at the tech areas with possible contaminants being high explosives, uranium, other radionuclides, beryllium, asbestos, and organic chemicals. Remediation is expected to range from limited removal followed by institutional controls and capping to the less likely case of larger volume removal and disposal.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1991
Complete RFI/CMS and RI/FS	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submittal to EPA Region VI, October 1987: and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1084-01/06-30
7. ACTIVITY NO: 2.2.1.02.0050
8. ACTIVITY TITLE: TA-12, Firing Sites, Structures (AL-LA-47) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS:
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites comprising an area of approximately 9 acres. The sites include firing pits and firing sites; and noncombustible residual of burned buildings. TA-12 (L-site) was used during and after WWII for high-explosive testing. The site was abandoned in 1953 and decommissioned in 1960 by flashing (burning) the structures. The debris still remains at the site. Potential contaminants include high explosives and radionuclides. Possible remedial alternatives vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE: 35-
   CONST: 39-
5b. OLD B&R CODE:
   OPER: GF-11
   CE: 35-
   CONST: 39-
6. IDENTIFICATION NO: AL-1085-01/06-30
7. ACTIVITY NO: 2.2.1.02.0052
8. ACTIVITY TITLE: TA-14, Firing Sites (AL-LA-54) - Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of four potential release sites comprising approximately 20 acres. The sites include active and inactive firing sites, a trash burning area at the east end, an area in which classified material was dumped in local drainage, and a septic tank. TA-14 is an active firing site used by the Explosives Technology and Application Groups. Open and closed firing chambers, firing points and magazines were built on the site. Possible remedial alternatives vary from selected removal followed by institutional controls to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1989
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1086-01/06-30
7. ACTIVITY NO: 2.2.1.02.0027
8. ACTIVITY TITLE: TA-15, Firing Sites, Burn Areas (AL-LA-23) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	20				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,250K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of the active PHERMEX and ECTOR firing sites; active and inactive sumps, drains, outfalls, and septic tanks; firing sites C, D, E-F, and I-J; burn area near E-F; material from E-F firing pit disposed of in Potrillo Canyon; and firing sites R-44, R-45, and R-263. TA-15 (R-Site) is a series of firing sites for hydrodynamic studies. Two main X-ray machine firing sites, PHERMEX and ECTOR, and soon a third (Linear accelerator), DARHT, are used by the operating groups. About 200 acres are associated with the current and abandoned firing sites and structures at TA-15. The possible contaminants are high explosives, depleted uranium, heavy metals, and beryllium. The probable remedial action is limited removal followed by institutional controls. Removal and disposal of larger volumes of surface soils from these areas and around structures is less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1088-01/06-30

7. ACTIVITY NO: 2.2.1.02.0028

8. ACTIVITY TITLE: TA-15, Process Areas (AL-LA-24) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	20				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of debris and pumps associated with buildings; active and inactive sumps, drains, outfalls, and septic tanks; Material Disposal Area N; and Material Disposal Area Z. TA-15 (R-Site) is a series of firing sites for hydrodynamic studies. Two main X-ray machine firing sites, PHERMEX and ECTOR, and soon a third (Linear accelerator), DARHT, are used by the operating groups. About one acre is associated with these disposal areas and structures possibly contaminated with uranium, high explosives, beryllium, and heavy metals. Possible remedial actions include selected removal followed by institutional controls and capping with removal and disposal for large volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and (2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1089-01/06-30
7. ACTIVITY NO: 2.2.1.02.0015
8. ACTIVITY TITLE: TA-15, Firing Points A, B, G, and DARHT (AL-LA-22) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	430	80	90	200	200		
Capital:							
Construction							
Equipment							
GPP							
Total	430	80	90	200	200		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,000K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of firing sites A, B, and G; firing site disposal areas; active sumps, drains, outfalls, and septic tanks; and decommissioned building areas. TA-15 (R-Site) is a series of firing sites for hydrodynamic studies. Two main X-ray machine firing sites, PHERMEX and ECTOR, and soon a third (Linear accelerator), DARHT, are used by the operating groups. About 68 acres contain the active and inactive firing sites and associated structures. Possible contaminants include uranium, beryllium, heavy metals, and high explosives. Possible remedial actions include selected removal followed by institutional controls with removal and disposal of larger volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start DAHRT Site Recon	October 1988
Finish DAHRT Site Recon	May 1989
Start RFI/CMS and RI/FS	October 1989
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site;
(3) DAHRT reconnaissance plan completed; and
(4) DAHRT reconnaissance sampling completed.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1092-01/06-30
7. ACTIVITY NO: 2.2.1.02.0057
8. ACTIVITY TITLE: TA-16 and TA-25, Ponds, Pits, and Tanks (AL-LA-14) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20			100	90	110	510
Capital:							
Construction							
Equipment							
GPP							
Total	20			100	90	110	510
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $830K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of potentially contaminated ponds, pits, dry wells, and storage tanks. TA-16 produces, tests, and assembles high explosive (HE) components for weapons R&D. There are about 200 structures at TA-16. TA-24 (T-site) was originally a service area for X-ray examination of HE and for HE storage; it is now nonoperational and part of TA-16. TA-25 (V-site) was also an HE process area and is now nonoperational and part of TA-16. About 3 acres are associated with these structures and are potentially contaminated with high explosives, barium, organic chemicals, and radionuclides. Remediation ranges from limited removal followed by institutional controls to the less likely case for larger volume removal and disposal.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1991
Complete RFI/CMS and RI/FS	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have tasks listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1093-01/06-30
7. ACTIVITY NO: 2.2.1.02.0023
8. ACTIVITY TITLE: TA-18, 27, Contaminated Buildings, Subsurface Structures (AL-LA-18) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	20				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $810K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of potentially contaminated areas, sanitary sewer, drains, outfalls, acid sewer system, sumps, acid waste tanks, magazines, and an underground petroleum tank. TA-18 was originally used for high explosive (HE) testing (up to 2 tons per test) at three firing points. TA-18 is currently used for critical assembly research. TA-27 is down-canyon from TA-18 and was (now abandoned) used for a plutonium gun assembly program. The guns and ammunition are buried at the site. About 1.4 acres are associated with these structures and areas. Possible contaminants are organic chemicals, acids, radionuclides, beryllium, and mercury. Remediation could include limited removal or, less likely, removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Complete RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit, November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1094-01/ 06-30

7. ACTIVITY NO: 2.2.1.02.0022

8. ACTIVITY TITLE: TA-18, 27, Contaminated Buildings, Subsurface Structures (AL-LA-17) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20			100	80	110	500
Capital:							
Construction							
Equipment							
GPP							
Total	20			100	80	110	500
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $810K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of firing sites, ballistic test sites, contaminated buildings, sanitary sewer systems, acid sewer systems, underground storage pipe, and buried tank. TA-18 was originally used for high explosive (HE) testing (up to 2 tons per test) at three firing points. TA-18 is currently used for critical assembly research. TA-27 is down-canyon from TA-18 and was (now abandoned) used for a plutonium gun assembly program. The guns and ammunition are buried at the site. About 6 acres associated with these sites and structures are potentially contaminated with organic chemicals, acids, radionuclides, beryllium, high explosives, and heavy metals. Possible remedial actions include limited removal followed by institutional controls to the less likely removal and disposal for large volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1991
Complete RFI/CMS and RI/FS	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1095-01/06-30

7. ACTIVITY NO: 2.2.1.02.0021

8. ACTIVITY TITLE: TA-18, 27, Contaminated Buildings, Burial Pits, Lagoons (AL-LA-16) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20			100	90	110	520
Capital:							
Construction							
Equipment							
GPP							
Total	20			100	90	110	520
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of potentially contaminated control building, firing pits, burial pit, lagoons, outfalls, and magazines. TA-18 was originally used for high explosive (HE) testing (up to 2 tons per test) at three firing points. TA-18 is currently used for critical assembly research. TA-27 is down-canyon from TA-18 and was (now abandoned) used for a plutonium gun assembly program. The guns and ammunition are buried at the site. About 7 acres are associated with these potential release sites with radionuclides, heavy metals, beryllium, high explosives, and organic chemicals as possible contaminants. Possible remediation may be limited removal followed by institutional controls to the less likely removal and disposal option for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1991
Complete RFI/CMS and RI/FS	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have tasks listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1096-01/06-30
7. ACTIVITY NO: 2.2.1.02.0048
8. ACTIVITY TITLE: TA-19, Contaminated Structures (AL-LA-45) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30	150	200	200	260		
Capital:							
Construction							
Equipment							
GPP							
Total	30	150	200	200	260		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of two potential release sites comprising approximately 1.5 acres. The sites include a septic tank and building debris. TA-19 (East Gate Laboratory) consisted of a laboratory storage hutment where spontaneous fission experiments were conducted. Only a septic tank remains at the decommissioned site. Possible contaminants include radionuclides, solvents, and hazardous chemicals. Possible remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1988
Finish of RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1. LANL will have each task listed in a RCRA permit November 1989 covering the SWMUs in this task. This is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1098-01/06-30
7. ACTIVITY NO: 2.2.1.02.0046
8. ACTIVITY TITLE: TA-2, Pits, Contaminated Areas (AL-LA-42) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites comprising approximately 6.3 acres. The sites include operational releases, an oil storage area, and burn pits. TA-2 is the Omega West Reactor which is an 8MW-water cooled reactor fueled by 93% U-235. Two other reactors, a water boiler reactor and a fast reactor called Clementine were also operated and decommissioned at TA-2. Potential contaminants include fission products, heavy metals, potassium dichromate, and PCB-contaminated oil. Potential remedial alternatives may vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1099-01/06-30
7. ACTIVITY NO: 2.2.1.02.0045
8. ACTIVITY TITLE: TA-2, 41, Contaminated Areas and Buildings (AL-IA-41) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of seven potential release sites comprising approximately 18 acres. The sites include contaminated areas associated with buildings, septic tanks, drain field, outfall area, sumps and lines, and effluents. TA-2 is the Omega West Reactor which is an 8MW water-cooled reactor fueled by 93% U-235. Two other reactors, a water boiler reactor and a fast reactor, called Clementine, were also operated and decommissioned at TA-2. TA-41 is operated by the Weapons Subsystems Group (WX-5) for work on boosting systems and long-term studies on critical weapons subsystems. Potential contaminants include fission products, hazardous chemicals, heavy metals, and beryllium. Potential remedial alternatives vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1100-01/06-30
7. ACTIVITY NO: 2.2.1.02.0038
8. ACTIVITY TITLE: TA-20, 53 Pits, Firing Sites, Outfalls (AL-LA-34) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three types of potential release sites: disposal pits, firing sites, and lagoons and outfall areas. These sites comprise an area of approximately 13 acres. TA-20, located below TA-53 in Sandia Canyon, was a WWII testing and firing area for weapon initiators. TA-20 has been D&D and is currently abandoned. TA-53 is the LAMPF (Los Alamos Meson Physics Facility) which is a proton accelerator producing many secondary particles used in a wide range of experimental programs. The LAMPF is the third largest facility complex at Los Alamos. Potential contaminants include activation of fission products, high explosive, and beryllium. Potential remedial alternatives for these sites include selected removal followed by institutional controls to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1993
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1106-01/06-30
7. ACTIVITY NO: 2.2.1.02.0010
8. ACTIVITY TITLE: TA-21, Subsurface Structures (AL-LA-9) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	100	100	200	600	610		
Capital:							
Construction							
Equipment							
GPP							
Total	100	100	200	600	610		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,610K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of storage tanks, seepage pits, drain lines, septic tanks, sumps, pits, and manholes. TA-21 was partially decommissioned and decontaminated (D&D) in 1977-1980. Most of the contaminated buildings, exterior duct work, and underground structures still remain at TA-21. About 5 acres are associated with these structures with potential contaminants being acids, organic chemicals, uranium, americium, and plutonium. Remediation is expected to consist of partial removal followed by institutional controls with removal and disposal possible in small subsurface areas near the industrial waste line.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1107-01/06-30
7. ACTIVITY NO: 2.2.1.02.0009
8. ACTIVITY TITLE: TA-21, Material Disposal Areas A, B, U, V (AL-LA-8-2) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	200	200	250	940	940	930	
Capital:							
Construction							
Equipment							
GPP							
Total	200	200	250	940	940	930	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,460K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of Material Disposal Areas A, B, U, V, landfills, and surface disposal areas. TA-21 was the plutonium processing, recovery, and fabrication facility at Los Alamos until 1978 when operations were transferred to TA-55. The material disposal areas at TA-21 contain debris, TRU-mixed waste, and plutonium-processing equipment from the 1940s to the 1970s. The Material Disposal Areas cover about 12 acres with remediation likely to be limited to removal followed by capping due to the great distance (>500 ft) to the deep aquifer. Removal and disposal is less likely. Possible contaminants include plutonium, americium, fission products, uranium, organic chemicals, and heavy metals.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1108-01/06-30
7. ACTIVITY NO: 2.2.1.02.0008
8. ACTIVITY TITLE: TA-21, Material Disposal Area T (AL-LA-8-1) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	230	200	250	1050	1050	1050	
Capital:							
Construction							
Equipment							
GPP							
Total	230	200	250	1050	1050	1050	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,830K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of Material Disposal Area T at TA-21. Area T contained four absorption gravel beds for untreated liquid plutonium and americium waste disposal in the early 1950s. Plutonium and americium have been found below the beds to about a 90-foot depth. Limited removal followed by capping the site (1 acre) is the expected remediation with removal and disposal less likely due to the long (>500 ft) distance to the deep aquifer below the site. Possible contaminants include plutonium, americium, acids, ammonium citrate and fluoride.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is a currently funded, ongoing activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) hydrogeological assessments of Area T previous two boreholes (1977-1979) are complete.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1109-01/06-30
7. ACTIVITY NO: 2.2.1.02.0011
8. ACTIVITY TITLE: TA-21, Outfalls, Buildings, and Spills (AL-LA-10-1) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	420	100	100	100	510		
Capital:							
Construction							
Equipment							
GPP							
Total	420	100	100	100	510		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,230K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of outfalls, spills, and contaminated areas. TA-21 was partially decommissioned and decontaminated (D&D) in 1977-1980. About 88 acres are associated with old decontaminated spills and outfalls surrounding the TA-21 area. Remediation of these potential release sites for radionuclides and organic chemicals ranges from selected removal of small volumes to the less likely removal and disposal of structures and associated larger contaminated volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) reconnaissance sampling completed on some outfalls--raw data report, Task AL-LA-10-1, TA-21 Outfalls, February 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1110-01/06-30
7. ACTIVITY NO: 2.2.1.02.0012
8. ACTIVITY TITLE: TA-21, Outfalls, Buildings, and Spills (AL-LA-10-2) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	100	80	80	80	470		
Capital:							
Construction							
Equipment							
GPP							
Total	100	80	80	80	470		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $810K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of contaminated incinerators, buildings, and structures. TA-21 was partially decommissioned and decontaminated (D&D) in 1977-1980. Most of the contaminated buildings, exterior duct work, and underground structures still remain at TA-21. The D&D removed the equipment and utilities to the bare walls. Small areas (.2 acre) associated with the buildings may require remediation of radionuclide and organic chemical contamination ranging from selected removal followed by institutional controls to the less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1111-01/06-30
7. ACTIVITY NO: 2.2.1.02.0034
8. ACTIVITY TITLE: TA-22, 40, Contaminated Areas and Structures (AL-LA-30) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of eight potential release sites within TA-22 and 40. The contaminated areas resulted from operational releases, solvent spills, firing site activities, outfalls, sumps, septic systems, underground storage tanks, and Material Disposal Area F. These sites comprise approximately five acres where the potential contaminants are high explosives, water treatment chemicals, acids, organics, petroleum products, beryllium, and radionuclides. Potential remedial alternatives vary from selected removal followed by institutional controls to the less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1993
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1112-01/06-30
7. ACTIVITY NO: 2.2.1.02.0047
8. ACTIVITY TITLE: TA-26, Contaminated Areas (AL-LA-43) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30	150	200	200	260		
Capital:							
Construction							
Equipment							
GPP							
Total	30	150	200	200	260		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites comprising approximately 1.5 acres. The sites include a canyon site disposal area, outfall areas, and septic tank south of vault area. TA-26 (D-site) at East Gate consisted of a concrete storage vault, security buildings, and gun towers. These buildings were demolished in 1965 or 1966. Potential contaminants include tritium and other radionuclides. Possible remedial alternatives vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1989
Finish of RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have each task listed in a RCRA permit November 1989 covering the SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1114-01/06-30
7. ACTIVITY NO: 2.2.1.02.0025
8. ACTIVITY TITLE: TA-3, 59, Contaminated Structures and Areas (AL-LA-20) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	60				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $810K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of cooling tower blowdown, lagoons, pits, landfills, outfalls, and contaminated areas. TA-3 was originally South Mesa Site with firing sites during WWII. Currently TA-3 is the largest administrative and research area of the Laboratory. The main shops area fabricate uranium, CMR building provides plutonium and uranium chemical support, and numerous operational areas include accelerators and other specialized R&D equipment. TA-59 is the Health, Safety, and Environment Division complex which contains the chemical analysis laboratory. About 5 acres are associated with these structures with potential contaminants including asbestos, organic chemicals, fluoride, chromium, and radionuclides. Possible remedial actions include selected removal followed by institutional controls with removal and disposal of larger volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1115-01/ 06-30
7. ACTIVITY NO: 2.2.1.02.0026

8. ACTIVITY TITLE: TA-3, 59, Contaminated Structures and Areas (AL-LA-21) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	60				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,220K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

Summary Description of Task: This task consists of contaminated areas, fuel oil storage tanks, oil sump, floor drain, septic tanks, and well. TA-3 was originally South Mesa Site with firing sites during WWII. Currently TA-3 is the largest administrative and research area of the Laboratory. The main shops area fabricate uranium, CMR building provides plutonium and uranium chemical support, and numerous operational areas include accelerators and other specialized R&D equipment. TA-59 is the Health, Safety,and Environment Division complex which contains the chemical analysis laboratory. About 2 acres are associated with these structures with possible contaminants including uranium, acids and bases, heavy metals, and organic chemicals. Possible remedial actions including selected removal followed by institutional controls to removal and disposal for small areas.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1116-01/ 06-30

7. ACTIVITY NO: 2.2.1.02.0024

8. ACTIVITY TITLE: TA-3, 59, Contaminated Structures and Areas (AL-LA-19) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	60				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $810K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of burn pits, chemical waste sumps and tanks, explosive-manufacturing areas, firing sites, cooling tower, outfalls, vacuum pump repair shop, and septic tank cesspool. TA-3 was originally South Mesa Site with firing sites during WWII. Currently TA-3 is the largest administrative and research area of the Laboratory. The main shops fabricate uranium, CMR building provides plutonium and uranium chemical support, and numerous operational areas include accelerators and other specialized R&D equipment. TA-59 is the Health, Safety, and Environment Division complex which contains the chemical analysis laboratory. About 34 acres are associated with these structures and sites. Potential contaminants include high explosives, radionuclides, heavy metals, beryllium, and organic chemicals. Possible remediations include selected removal followed by institutional controls with removal and disposal of larger volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1117-01/ 06-30
7. ACTIVITY NO: 2.2.1.02.0059

8. ACTIVITY TITLE: TA-31, Contaminated Areas (AL-LA-49) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	210	200	200	210		
Capital:							
Construction							
Equipment							
GPP							
Total	20	210	200	200	210		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site, which is approximately 1 acre in size. The site is a contaminated area associated with buildings. TA-31 (East Receiving Yard) had six warehouses, a receiving dock, and drum storage area. These structures were removed in 1954 and most of the land subsequently became a private housing area (Eastern Area near Los Alamos airport). An abandoned septic tank remains on a portion of the land owned by Los Alamos County. Potential contaminants include chemical and petroleum products. Possible remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1989
Finish of RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. Residual potential contamination poses very small risk to public, however public access to area is extensive.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1119-01/ 06-30
7. ACTIVITY NO: 2.2.1.02.0044
8. ACTIVITY TITLE: TA-32, Contaminated Areas and Structures, Townsite (AL-LA-40) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	100	200	200	320		
Capital:							
Construction							
Equipment							
GPP							
Total	20	100	200	200	320		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites which comprise approximately 7 acres. The sites include an old lab area, septic tanks and associated structures, and an incinerator. TA-32 was the medical research lab facility before 1953. The facility consisted of labs, offices, and an incinerator. TA-32 was removed as part of routine operations; no records are available on the decommissioning and decontamination of this facility. Potential contaminants include radionuclides and hazardous wastes. Potential remedial alternatives for these sites vary from selected removal followed by institutional controls to the less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1988
Finish of RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task. Based on limited data there is no known risk to the public.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1122-01/06-30
7. ACTIVITY NO: 2.2.1.02.0003
8. ACTIVITY TITLE: TA-33, Buildings and Outfalls (AL-LA-3) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60	100	100	500	430		
Capital:							
Construction							
Equipment							
GPP							
Total	60	100	100	500	430		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,190K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of buildings, outfalls, sumps, drains, septic tanks, magazines, firing sites and shafts, gunfiring areas, and drain lines. These structures are associated with the now-abandoned TA-33 gun firing and tower/firing sites areas where munitions and weapons components were tested. The structures, debris areas, and associated outfalls may contain depleted uranium, beryllium, organic chemicals, heavy metals, high explosives residues, and plutonium in one old decontaminated spill area. These potential release site areas covering about 140 acres are all expected to have low levels of contamination and would probably need limited removal of contaminants and institutional controls. Removal and disposal could be possible at a few debris areas.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is a currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1125-01/06-30
7. ACTIVITY NO: 2.2.1.02.0004
8. ACTIVITY TITLE: TA-33, Subsurface Structures (AL-LA-4) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	20	100	100	300	190		
Capital:							
Construction							
Equipment							
GPP							
Total	20	100	100	300	190		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $710K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of waste tanks, septic tanks, drain lines, and trenches. These underground structures are associated with TA-33 gun firing and tower/firing site areas where munitions and weapons components were tested. About two acres containing underground structures may be associated with these firing sites. The potential contaminants are organic chemicals, mercury, beryllium, tritium, and depleated uranium. Remedial actions will probably consist of limited removal followed by leaving these structures in place in most cases due to low contamination levels. Removal and disposal offsite is unlikely due to the expected low concentration and hazard potential of the contaminants.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit covering SWMUs in this task November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1126-01/06-30
7. ACTIVITY NO: 2.2.1.02.0002
8. ACTIVITY TITLE: TA-33, Material Disposal Areas (AL-LA-2) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	690	100	100	540			
Capital:							
Construction							
Equipment							
GPP							
Total	690	100	100	540			
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,430K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of Material Disposal Areas D, E, and K and a burning pit covering about 10 acres. The materials in D and E are debris from gun firing and tower/firing site areas TA-33 where munitions and weapons components were tested. TA-33 has an operating-tritium handling facility as part of the weapons program, which discharges effluents into an area called Material Disposal Area K. Remedial actions for D & E are expected to be possibly limited removal followed by institutional controls due to the low hazard potential of buried depleted uranium and small amounts of beryllium contamination. Area K is expected to contain a subsurface tritium plume (which would decay quickly [T 1/2=12yrs]) and possibly acids and organic chemicals requiring only institutional controls with limited removal and disposal after the tritium facility is decommissioned in FY 1989.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1992

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Characterizing the disposal areas at TA-33 will require surface sampling and boreholes into the disposal areas to determine source terms and look for possible plumes. Cost estimates were made assuming a set number of boreholes and samples. Sampling plans are needed to better define the RI work. The RD/RA costs are based solely on engineering assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site;
(3) Reconnaissance Sampling Plan completed for Task 2, Material Disposal Areas; and
(4) Reconnaissance Sampling scheduled for summer, FY 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1129-01/06-30
7. ACTIVITY NO: 2.2.1.02.0006
8. ACTIVITY TITLE: TA-35,42,48,55 (AL-LA-6) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60	100	100	300	600		
Capital:							
Construction							
Equipment							
GPP							
Total	60	100	100	300	600		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,160K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of contaminated areas, debris areas, storage tanks, storm drains, outfalls, underground structures, drum storage, and septic tanks. TA-35 had many early sites where tritium and strontium-90 were processed. Several small experimental nuclear reactors were also developed and tested at TA-35. TA-42 was an incinerator for contaminated solid waste (now decommissioned and removed). TA-55 is the current plutonium production and fabrication facility for LANL. TA-48 processes medical and NTS radioisotopes. These areas contain about 11 acres of potential surface and subsurface release sites with a variety of contaminants including mercury, plutonium, fission products, and organic chemicals. Remediation is expected to consist of either limited removal followed by institutional controls with removal and disposal less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
OPER: GF-72-91-01
CE:
CONST:
5b. OLD B&R CODE:
OPER: GF-11
CE:
CONST:
6. IDENTIFICATION NO: AL-1130-01/06-30
7. ACTIVITY NO: 2.2.1.02.0043
8. ACTIVITY TITLE: TA-36, Contaminated Areas (AL-LA-39) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of four potential release sites which comprise approximately 2 acres. The sites include a chamber for containment and recovery of shots at firing site, high explosive drop tower, small waste burial site in Potrillo Canyon, and disposal area for contaminated liquid. TA-36 is operated by the Explosives Application Group to understand high-explosive detonation phenomenon. Potential contaminants include radionuclides, nitric acid, and hazardous wastes. Potential remedial alternatives vary from selected removal followed by institutional controls to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1131-01/06-30
7. ACTIVITY NO: 2.2.1.02.0042
8. ACTIVITY TITLE: TA-36, Firing Sites, Pits (AL-LA-38) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of six potential release sites comprising approximately 24 acres. The sites include septic systems, firing sites, landfill, explosive disposal area at Lower Slobbovia, burning pits, and burial pits. TA-36 consists of several firing sites in and near Potrillo Canyon. TA-36 is operated by the Explosives Application Group to study high-explosive detonation phenomenon. Potential contaminants include high explosives, radionuclides, heavy metals, and hazardous chemicals. Potential remedial alternatives vary from selected removal followed by institutional controls and capping, to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1132-01/06-30
7. ACTIVITY NO: 2.2.1.02.0058
8. ACTIVITY TITLE: TA-39, Firing Sites, Material Disposal Areas (AL-LA-48) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of four potential release sites which comprise an area of approximately 35.2 acres. The sites include firing sites, a waste disposal pit, Material Disposal Area Y, and septic tank. TA-39 (Ancho Canyon Site) is located in the Canyon. The site is operated (since 1953) by the Shockwave Physics Group and consists of five firing points and several gun sites. Potential contaminants include radionuclides, high explosives, heavy metals, and hazardous chemicals. Possible remedial alternatives vary in scope from selected removal followed by institutional controls to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential ites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1134-01/06-30
7. ACTIVITY NO: 2.2.1.02.0007
8. ACTIVITY TITLE: TA-4,5,35,52 (AL-LA-7) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60	100	100	300	790		
Capital:							
Construction							
Equipment							
GPP							
Total	60	100	100	300	790		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,350K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of firing pits, firing sites, decommissioned buildings, outfalls, oil spills, septic tanks, petroleum and waste storage tanks, waste oil lagoons, and an abandoned reactor building. TA-4 and 5 were used as firing sites in the 1940s. Both sites have been decommissioned and structures removed. At TA-35 numerous outfalls to the Canyons are visible from the current (Laser Fusion) and earlier operations. The fusion work requires large volumes of oil which have occasionally overflowed the sumps to the canyons. TA-52 was an experimental nuclear reactor which only operated a few months; therefore, the fission product inventory was very low with little residual contamination. TA-52 will be decontaminated before the RI/FS is completed. At TA-4 and 5 abandoned firing sites cover about 20 acres with potential contaminants including depleted uranium, beryllium, high explosives, and heavy metals. Remediation is expected to consist of possibly limited removal followed by institutional controls with removal and disposal less likely. The remaining surface and subsurface structures and outfalls at TA-35 and TA-52 covering 35 acres have potential contaminants including fission products, organic chemicals, and PCBs. Remediation could consist of possibly limited removal followed by institutional controls with removal and disposal less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1988
Complete RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1136-01/06-30
7. ACTIVITY NO: 2.2.1.02.0060
8. ACTIVITY TITLE: TA-43, Outfalls (AL-LA-50) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an approximate size of 1 acre. The site is an area potentially contaminated from past outfalls. TA-43 is the Health Research Laboratory (HRL) near the Los Alamos Medical Center. HRL was first occupied in 1953 by groups doing biomedical and industrial hygiene research. Current operations are more diverse with research in toxicology, genetics, pathology, biophysics, and neurobiology. Potential contaminants include fission products and corrosion inhibitors. Possible remedial alternatives vary from selected removal for small volumes to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1138-01/06-30
7. ACTIVITY NO: 2.2.1.02.0051
8. ACTIVITY TITLE: TA-45, Industrial Liquid Waste Treatment Plant, Townsite (AL-LA-53) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	40	200	200	200	200		
Capital:							
Construction							
Equipment							
GPP							
Total	40	200	200	200	200		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an approximate size of 5 acres. The site resulted from the former industrial liquid waste treatment plant effluent released to Acid Canyon. TA-45 received industrial and radioactive liquid wastes from TA-1 (Main Technical Area during WWII). Until 1951 raw waste was discharged into Acid Canyon. By 1951 the TA-45 waste treatment plant was operating and most of the contaminates were removed before discharge. The plant was decontaminated and decommissioned in 1966. Extensive sampling and surveillance was done under the FUSRAP program. Possible remedial alternatives vary from selected removal for small volumes to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1988
Finish of RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimate based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to Region EPA VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1140-01/06-30

7. ACTIVITY NO: 2.2.1.02.0037

8. ACTIVITY TITLE: TA-46, Contaminated Structures and Areas (AL-LA-33) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of four potential release sites consisting of septic tanks, outfalls, and a decommissioned stabilization pit. These sites comprise an area of approximately 11 acres. TA-46 was originally used for nuclear reactor rocket (Rover) R&D. Currently, TA-46 has a large number of laser research, chemistry, and accelerator groups engaged in R&D. Potential contaminants include hazardous chemicals, heavy metals, and radionuclides. Potential remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1993
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:
OPER: GF-72-91-01
CE:
CONST:

5b. OLD B&R CODE:
OPER: GF-11
CE:
CONST:

6. IDENTIFICATION NO: AL-1141-01/06-30
7. ACTIVITY NO: 2.2.1.02.0035

8. ACTIVITY TITLE: TA-46, Lagoons, Outfalls, (AL-LA-31) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of five potential release sites consisting of discharge areas, sanitary lagoons; sewer system outfall from metallurgical polishing lab; spills; and septic tank and associated drain field. These sites comprise an area of approximately four acres. Potential contaminants include radionuclides, hazardous chemicals, and heavy metals. Potential remedial alternatives vary from selected removal to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1993
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1142-01/06-30
7. ACTIVITY NO: 2.2.1.02.0036
8. ACTIVITY TITLE: TA-46, Landfill, Contaminated Structures (AL-LA-32) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites consisting of septic tanks and associated drain fields, building sumps and drains, and a material fill area at head of Canyon del Buey. These sites comprise an area of approximately one acre. Potential contaminants include hazardous chemicals, heavy metals, and radionuclides. TA-46 was originally used for nuclear reactor rocket (Rover) R&D. Currently TA-46 has a large number of laser research, chemistry, and accelerator groups engaged in R&D. Potential remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1993
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1144-01/06-30
7. ACTIVITY NO: 2.2.1.02.0016
8. ACTIVITY TITLE: TA-49, Deep Subsurface, Contamination From Shots (AL-LA-51)—Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	110	280	270	360	750	1010	
Capital:							
Construction							
Equipment							
GPP							
Total	110	280	270	360	750	1010	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,780K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an approximate size of 3 acres and consists of Material Disposal Area AB. At TA-49 underground hydronuclear experiments were conducted in 1960-61. The experiments involved high explosives, plutonium, beryllium, and lead in nuclear weapon configurations to test weapon safety. To support the experiments a small radiochemistry facility was also built at the site. Most aboveground structures have been removed and the surface decommissioned and decontaminated. Potential remedial alternatives for these mixed wastes vary from selected removal followed by capping to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1988
Finish of RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) risk assessments are currently being calculated using existing hydrological data.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

None.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1145-01/06-30
7. ACTIVITY NO: 2.2.1.02.0017
8. ACTIVITY TITLE: TA-49, Surface Structures (AL-LA-52) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	90	150	150	150	140	380	
Capital:							
Construction							
Equipment							
GPP							
Total	90	150	150	150	140	380	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,060K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of five potential release sites comprising an area of approximately 4 acres. The sites include a leach field, surface radioactive contamination at areas 12 and 5, a landfill/trash-burning area, and surface contamination associated with Material Disposal Area AB. At TA-49 underground hydronuclear experiments were conducted in 1960-61. The experiments involved high explosives, plutonium, beryllium, and lead in nuclear weapon configurations to test weapon safety. To support the experiments a small radiochemistry facility was also built at the site. Most aboveground structures have been removed and the surface decommissioned and decontaminated. Possible remedial alternatives vary from selected removal of low-level surface contaminants followed by institutional controls to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1988
Finish of RFI/CMS and RI/FS	September 1994

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. Task 52 is sensitive because this area is associated with Task 51, which contains the largest buried TRU inventory at Los Alamos. Therefore, remediation of surface contamination at TA-49 will be high priority due to public and regulatory concern.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1147-01/06-30
7. ACTIVITY NO: 2.2.1.02.0005
8. ACTIVITY TITLE: TA-50, Material Disposal Area C (AL-LA-5) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60	100	100	300	560		
Capital:							
Construction							
Equipment							
GPP							
Total	60	100	100	300	560		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,120K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of TA-50 and Material Disposal Area C. TA-50 is the radioactive and industrial liquid waste treatment facility. Contaminated liquid is treated, contaminants precipitated, and solids drummed for disposal at TA-54. The treated effluent is released into Mortandad Canyon. The surface and subsurface structures near TA-50 encompass about 31 acres. Remediation ranges from no action, capping, and removal/disposal depending on the levels of uranium, plutonium, fission products, heavy metals, and organic chemicals found during RI/FS. Area C is about 10 acres and contains TRU-mixed wastes in shafts, pits, and trenches. Remediation of Area C could be capping or possibly removal and disposal, though the latter is less likely.

16. MILESTONE SCHEDULE (by Fiscal year):

Start RFI/CMS and RI/FS	October 1988
Finish RFI/CMS and RI/FS	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates for TA-50 structures are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. LANL will have a RCRA permit covering SWMUs in this task November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1148-01/06-30
7. ACTIVITY NO: 2.2.1.02.0053
8. ACTIVITY TITLE: TA-51, Waste Drums and Debris (AL-LA-55) Assessment.
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an area of approximately 0.1 acre. The site consists of unmarked waste drums and debris located at the experimental complex. TA-51 is an animal experimental and environmental research area. A-dog holding facility and large animal buildings were used for toxicity studies. Potential contaminants include hazardous wastes. The most likely remedial alternative will be selected removal of small volumes with less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1149-01/06-30
7. ACTIVITY NO: 2.2.1.02.0039
8. ACTIVITY TITLE: TA-53, Outfalls Disposal Pit (AL-LA-35) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of two potential release sites—a cooling tower outfall area and disposal pit. These sites comprise approximately 1.5 acres at TA-53. TA-53 is the LAMPF (Los Alamos Meson Physics Facility) which is a proton accelerator producing many secondary particles used in a wide range of experimental programs. The LAMPF is the third largest facility complex at Los Alamos. Potential contaminants include hazardous chemicals and radionuclides. Potential remedial alternatives include selected removal followed by institutional controls, and the less likely option of removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1993
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1153-01/ 06-30
7. ACTIVITY NO: 2.2.1.02.0049

8. ACTIVITY TITLE: TA-54, Material Disposal Areas L, H, G and J (AL-LA-46) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	60						1140
Capital:							
Construction							
Equipment							
GPP							
Total	60						1140
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,340K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of four potential release sites comprising an area of approximately 70 acres. The sites include Material Disposal Areas L, H, G, and J. TA-54 is a currently active, solid waste disposal area at Los Alamos. Radioactive (low-level and stored transuranic) waste are handled at Area G. Area G also has buried pre-1973 transuranic mixed waste (6 trenches). Area L currently stores hazardous chemicals before shipment for treatment. Area L has many old shafts augered into the tuff where hazardous chemicals were disposed. Area H consists of shafts with classified waste. Area J consists of three trenches where flashed high-explosives contaminated waste from TA-15 as well as other nonhazardous wastes are disposed. Potential contaminants include radionuclides, solvents, and hazardous wastes. Potential remedial alternatives vary in scope from selected removal followed by institutional controls to removal and disposal of larger volumes. RCRA Closures are proposed for parts of Material Disposal Areas L, H, and G. (See AL-LA-RC-2, AL-LA-RC-6, and AL-LA-RC-7.)

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989. Also some units are portions included in closure plans submitted to NMEID and are awaiting approval.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1154-01/06-30
7. ACTIVITY NO: 2.2.1.02.0054
8. ACTIVITY TITLE: TA-57, Fenton Hill Site (AL-LA-56) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30						300
Capital:							
Construction							
Equipment							
GPP							
Total	30						300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an area of approximately 1 acre. The site consists of drilling mud and cuttings from Fenton Hill geothermal site. TA-59 is the site where several very deep geothermal wells were drilled and tested near the Valle Caldera in the Jemez Mountains west of Los Alamos. The 20-acre development contains several support buildings. Potential contaminants include radionuclides and hazardous wastes. Possible remedial alternatives vary from selected removal to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1994
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1155-01/ 06-30
7. ACTIVITY NO: 2.2.1.02.0032
8. ACTIVITY TITLE: TA-6, 7, 22, 40, Contaminated Areas (AL-LA-28) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of disposal pits, firing sites, contaminated areas, septic systems, drains, outfalls, surface disposal areas, and Material Disposal Area F. This task consists of nine potential release sites comprising approximately 7 acres. The potential contaminants are uranium, high explosives, organic chemicals, beryllium, heavy metals, and radionuclides. Potential remedial alternatives vary from selected removal followed by institutional controls and capping, to removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1156-01/06-30
7. ACTIVITY NO: 2.2.1.02.0033

8. ACTIVITY TITLE: TA-6, 7, 22, 40, Contaminated Areas (AL-LA-29) Assessment

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	30				40	200	200
Capital:							
Construction							
Equipment							
GPP							
Total	30				40	200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of 12 potential release sites consisting of disposal pits, drain lines, outfalls, sumps, dry wells, contaminated areas, firing sites, canyon side disposal areas, and underground storage tanks covering about 12 acres. Potential contaminants are high explosives, radionuclides, beryllium, arsenic, heavy metals, and fuel oil. Potential remedial alternatives vary from selected removal followed by institutional controls to removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RFI/CMS and RI/FS	October 1992
Finish RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1157-01/06-30
7. ACTIVITY NO: 2.2.1.02.0040
8. ACTIVITY TITLE: TA-8, 9, Firing Sites, Contaminated Structures (AL-LA-36) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	40					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	40					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,380K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of nine potential release sites comprising approximately 32 acres. The sites consist of radiography facilities; septic systems, sumps, and outfalls; contaminated areas associated with explosive processing facilities; outfall areas and sanitary lagoon; firing sites; landfills; sumps, pits, and septic tanks; and Material Disposal Areas M and Q. TA-8 (Anchor Ranch) was originally used for ordnance and radioactive material storage and staging. Currently TA-8 houses administrative and nondestructive testing for the Dynamic Testing Division and the Fabrication and Assembly Groups. TA-9 is operated by the Explosive Technology Group for developing and testing new explosives. TA-23 consisted of two lab buildings, a magazine, and an office building; it is currently abandoned (decommissioned) and part of TA-9. Potential contaminants include radionuclides, hazardous chemicals, lithium, asbestos, and high explosives. Potential remedial alternatives include selected removal followed by institutional controls, capping, and less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1993
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1158-01/06-30
7. ACTIVITY NO: 2.2.1.02.0041
8. ACTIVITY TITLE: TA-8, 9, Pits, Firing Sites, Contaminated Areas (AL-LA-37) Assessment
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	40					200	200
Capital:							
Construction							
Equipment							
GPP							
Total	40					200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $840K

14. KEY WORDS: CERCLA RI/FS and RCRA RFI/CMS

15. ACTIVITY DESCRIPTION:

This task consists of five potential release sites comprising approximately 6 acres. The sites include burial pits, burning area firing site, contaminated areas associated with explosive facilities, and septic systems. TA-8 (Anchor Ranch) was originally used for ordnance and radioactive material storage and staging. Currently TA-8 houses administrative and nondestructive testing for the Dynamic Testing Division and the Fabrication and Assembly Groups. TA-9 is operated by the Explosive Technology Group for developing and testing new explosives. TA-23 consisted of two lab buildings, a magazine, and an office building; it is currently abandoned (decommissioned) and part of TA-9. Potential contaminants include high explosives and radionuclides. Potential remedial alternatives vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RFI/CMS and RI/FS	October 1993
Finish of RFI/CMS and RI/FS	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on generic site assumptions.

18. PRIORITY RATIONALE:

Priority 2. LANL will have each task listed in a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 3
Environmental Restoration

RD&D
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

2.5.1.1 Research Development and Design--Los Alamos National Laboratory

The ER Program RD&D efforts at LANL are being developed to better enable LANL to meet the Secretary of Energy's directive that the national laboratories provide technical support to the environmental problems surfacing within DOE.

Goals and Objectives

The RD&D technology development program has several goals:

- o provide performance assessment tools to meet waste minimization and long-term containment criteria for radioactive wastes;
- o provide new treatment or elimination technologies for hazardous wastes so that waste management becomes less costly;
- o provide treatment technologies for mixed wastes to eliminate the hazardous chemical components;
- o provide in situ treatment technologies for remedial actions under RCRA or CERCLA/SARA; and
- o provide new cost-efficient measurement and calculational methodologies, acceptable to state or federal regulatory agencies, that enable field assessments to be performed in a more timely fashion.

Strategies

The RD&D program at LANL is developing both short-term methods and technologies for corrective actions or environmental restoration and long-term technologies for waste management problems.

To obtain appropriate funding for addressing the five areas of program effort, LANL is working with the DOE HAZWRAP programs, DoD environmental restoration agencies, and the EPA and integrating with the joint efforts of other DOE national laboratories. Projects are proposed as a mix of technologies that yield both short-term and long-term solutions.

Examples of RD&D solutions developed by LANL that are ready for field demonstration include an instrument system for real-time field measurements and two D&D-funded waste site closure demonstration projects. Treatment technologies for organic wastes, which are under development by LANL, include DOE and DoD supercritical water systems and microwave treatment and plasma waste destruction technologies for liquid and solid hazardous or mixed wastes. Results of these technologies are expected in three to five years. Calculational methods, currently being developed by LANL, need verification for application to performance assessments or for predictions supporting alternative actions for environmental restoration or waste management programs. In addition, LANL is utilizing computer- based "expert systems" in process modification

studies for waste elimination or minimization that are leading to optimized materials process systems. Another approach to solving environmental problems being evaluated by LANL is using site characterization tools being developed for the Yucca Mountain Project for other applications. For example, the computer code TRACE-3D is being used for low-level and mixed waste site assessments at LANL and the Idaho National Engineering Laboratory.

Organization

The RD&D projects at LANL are conducted in those Divisions (disciplines) proposing projects that meet the needs of DOE HAZWRAP, DoD, EPA, or other federal agencies. Program management is conducted out of an organization aimed at an integrated program that provides program coordination, needs assessments for environmental restoration and waste management, and followup of funding agency needs. Currently, the Program Manager for Environment resides in the LANL Energy and Technology Initiatives Office. Some reorganization is planned to provide added program integration and to provide a suite of measurement, calculational, and treatment technologies coordinated with environmental restoration and waste management needs. Problems needing RD&D are identified by the environmental restoration program and the operational waste management program. In addition, LANL participates in the DOE needs assessment efforts of HAZWARP.

ENVIRONMENTAL REST. & WASTE MGMT
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: RESEARCH, DEVELOPMENT & DEMONSTRATION

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ALT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 3															
251020009	2026	UNSATURATED ZONE TRANSPORT: ORGANIC TRACERS	ER	RDD	3	GF729301	GF02	6787	0	125	648	1623	1761	1605	1025
251020013	2032	ENRICHED UR DETECT. IN THE PRESENCE OF PU(AT RFP)	ER	RDD	3	GF729301	GF11	2322	56	56	121	1363	0	0	0
251020006	2004	MICROBIAL DEGRADATION OF EXPLOSIVES	ER	RDD	3	GF729301	GF02	2042	0	542	480	510	510	0	0
251020011	2031	SITE RESTORATION DEVELOPMENT (AT RFP)	ER	RDD	3	GF729301	GF11	1026	0	0	121	542	0	0	0
251020007	2008	UNSATURATED ZONE TRANSPORT OF CONTAMINANTS	ER	RDD	3	GF729301	GF02	700	0	0	125	175	150	125	125
251020004	2003	IN-SITU CHAR. OF WASTE SITES BY ION TRAP MASS SPEC	ER	RDD	3	GF729301	GF02	675	0	90	335	250	0	0	0
251020003	2006	SPARK ANALYSIS OF SOIL CONTAM.	ER	RDD	3	GF729301	GF02	440	80	260	100	0	0	0	0
251020010	2029	IN SITU TREATMENT OF GND WATER OR SOIL (AT RFP)	ER	RDD	3	GF729301	GF11	0	0	0	121	121	363	242	242
251020012	2030	SOIL COUNTING SYSTEM (AT RFP)	ER	RDD	3	GF729301	GF11	0	0	0	121	542	242	0	0
* Subsubtotal *								13992	136	1073	2172	5126	3026	1972	1392
** Subtotal **								13992	136	1073	2172	5126	3026	1972	1392

PREDECISIONAL DRAFT

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PREDECISIONAL DRAFT

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ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION

ACTIVITY DATA SHEETS

LOS ALAMOS NATIONAL LABORATORY

RESEARCH DEVELOPMENT AND DESIGN

PREDECISIONAL DRAFT

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

PREPARED/REVIEWED BY (SITE OFFICE):	ORGANIZATION:	DATE:
John M. Kuchett	LANL	4/29/89
PREPARED/REVIEWED BY (AREA OFFICE):	**ORGANIZATION:**	**DATE:**
J. A. Thomas	DOE/LAAO	4-28-89
PREPARED/APPROVED BY (TASK GROUP LEADER):	**ORGANIZATION:**	**DATE:**
[illegible]	DOE/AL	4/29/89
PREPARED/REVIEWED BY (AL TASK GROUP STUDY CHAIR):	**ORGANIZATION**	**DATE:**
Patrick J. Higgins Jr.	DOE/AL/OCAO	4/28/89

Sign-off Sheet Covers all ADS Sheets

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:
OPER: GF-72-93-01
CE:
CONST:

5b. OLD B&R CODE:
OPER: GF-02-06
CE:
CONST:

6. IDENTIFICATION NO: AL-2006-01/ 06-30
7. ACTIVITY NO: 2.5.1.02.0003

8. ACTIVITY TITLE: Laser Spark Analysis of Soil Contaminants

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	80	260	100				
Capital:							
Construction							
Equipment							
GPP							
Total	80	260	100				
RD&D (Non add)							
Operating	80	260	100				
Capital:							
Construction							
Equipment							
GPP							
Total	80	260	100				

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $440K

14. KEY WORDS: CERCLA/SARA FS

15. ACTIVITY DESCRIPTION:

See Number 22, RD&D description.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RD&D	October 1988
Finish of RD&D	September 1991

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 funding is in place.
FY 90 and FY 91 budget estimates based on guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

The instrument is also applicable for field measurements for corrective actions and waste management monitoring. The ability to obtain real time measurements with appropriate data reduction in the field is a cost savings. A larger cost savings is realized if real time measurements are made during remedial actions rather than having to wait for laboratory results from samples.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The LIBS technology has been used for development of a beryllium monitor. Application to soils as a portable instrument will require the adaption of "smart electronics" to existing equipment. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

The objective of this work is to develop a mobile field-deployable instrument to determine the elemental composition of soils using the laser induced breakdown spectroscopic (LIBS) technique. Emphasis will be placed on the determination of metallic elements (e.g., Cr) in soils. This program will be an extension of previous work at Los Alamos on the application LIBS methods to rapid in-the-field measurements which has resulted in the development of other instruments. The availability of the instrument proposed here will greatly increase the efficiency of soil analysis by (1) eliminating the need for time-consuming, laboratory-based measurements and (2) permitting the direct, in-situ analysis of soils.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-93-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-02-06
   CE:
   CONST:
6. IDENTIFICATION NO: AL-2003-01/06-30
7. ACTIVITY NO: 2.5.1.0.0004
8. ACTIVITY TITLE: In-situ Characterization of Waste Sites by Ion Trap Mass Spectrometer
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA, CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		90	335	250			
Capital:							
Construction							
Equipment							
GPP							
Total		90	335	250			
RD&D (Non add)							
Operating		90	335	250			
Capital:							
Construction							
Equipment							
GPP							
Total		90	335	250			

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $675K

14. KEY WORDS: CERCLA/SARA FS

15. ACTIVITY DESCRIPTION:

See Number 22, RD&D description.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RD&D	October 1989
Finish of RD&D	September 1992

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This instrumentation also will provide measurement capability for environmental restoration. The system reduces costs by moving the analytical results from the laboratory to the field in real time. During remedial actions, determinations of success of cleanup or waste sorting can be conducted in real time without waiting for sample results from a laboratory.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The laboratory model for organics of mass less than 600 amu is working for air, soil, and water samples with detection limits below regulatory limits. A library of about 1700 spectra allow indentification of unknowns. A report is generated at time of analysis. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

The Analytical Chemistry and Instrumentation Groups at Los Alamos National Laboratory have developed a transportable mass spectrometer for the in-situ characterization of chemical wastes. The proposal addressess the testing and field demonstration of this instrument and extends the instrumentation to the analysis of polymers and organometallic complexes.

Portable quadrupole mass spectrometers are marketed by Bruker Instruments and VG Instruments. The Los Alamos instrument is based on the Finnigan Ion Trap Detector, a small, simple analyzer that combines performance and versatility with reliability. The Los Alamos instrument will analyze soil, air, or water samples for volatile organic compounds to part-per-billion levels and incorporates a turn-key system so that the instrument can be used by nontechnical operators.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-93-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-02-06
   CE:
   CONST:
6. IDENTIFICATION NO: AL-2004-01/06-30
7. ACTIVITY NO: 2.5.1.02.0006
8. ACTIVITY TITLE: Microbial Degradation of Explosives
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA, CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		542	480	510	510		
Capital:							
Construction							
Equipment							
GPP							
Total		542	480	510	510		
RD&D (Non add)							
Operating		542	480	510	510		
Capital:							
Construction							
Equipment							
GPP							
Total		542	480	510	510		

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2042K

14. KEY WORDS: CERCLA/SARA FS

15. ACTIVITY DESCRIPTION:

See Number 22, RD&D description.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RD&D	October 1989
Finish of RD&D	September 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This technology also will have application for waste management programs. The use of microorganisms for in situ treatment reduces the risk of detonation of wastes during movement. Reduced costs are also realized by not moving large volumes of explosives-contaminated soils and sludges.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Microoganisms have been demonstrated to degrade explosives such as nitroglycerin and partially degrade more complex nitrated organic compounds such as TNT. The control and optimum conditions for degradation in situ need to be developed. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

The goal of the proposed work is to develop cost-effective methods for complete biological degradation of high explosives. Of primary interest is trinitrotoluene (TNT) which has been used for decades as an explosive throughout the DOE complex and by all of the US Armed Services. Because of this extensive utilization, TNT now contaminates numerous sites of munitions research, manufacturing, loading, assembling, and packing operation. Although soil and water microbes have been used for cost-effective decontamination on a commercial scale for several years, no microorganisms that degrade TNT have ever been isolated. We propose to isolate microorganisms from ecosystems that have been contaminated with TNT for decades and screen them for their ability to degrade TNT. We will characterize their metabolism and develop them for in situ reclamation of contaminated soil and groundwater.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-93-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-02-06
   CE:
   CONST:
6. IDENTIFICATION NO: AL-2008-01/06-30
7. ACTIVITY NO: 2.5.1.02.0007
8. ACTIVITY TITLE: Unsaturated Zone Transport of Contaminants
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA, CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			125	175	150	125	125
Capital:							
Construction							
Equipment							
GPP							
Total			125	175	150	125	125
RD&D (Non add)							
Operating			125	175	150	125	125
Capital:							
Construction							
Equipment							
GPP							
Total			125	175	150	125	125

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $700K

14. KEY WORDS: CERCLA/SARA FS

15. ACTIVITY DESCRIPTION:

See Number 22, RD&D description.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RD&D	October 1990
Finish of RD&D	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This work provides a set of tools for predictive calculation for environmental restoration and waste management in addition to corrective actions calculational analysis. The ability to predict future behavior of organics in unsaturated soil and rock systems is needed to compare alternative approaches to demonstrate compliance for RCRA or CERCLA. Public concerns can be lessened by demonstration of adequate calculational ability to present alternatives and demonstrate the best performance of a mitigation action.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Two dimensional transport predictions for organics in unsaturated soils has been demonstrated. Multilayer soil and rock systems as well as multiple organic compounds need to be added. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

A package of computer codes that are capable of simulating flow and transport of organic or inorganic chemicals in one, two, or three dimensions in saturated or unsaturated systems will be developed to assist DOE-DP sites in the remedial action/feasibility study process. These codes will be developed from fundamental governing equations so the code package will be applicable at any site. Efficient solution techniques will be used to reduce computational time as much as possible. The codes will be able to simulate three-phase fluid flow (water, organic, and vapor) as well as miscible transport in each phase. The codes will also readily collapse if only two phases are required or single phase transport of an inorganic chemical by water is needed. This increases the efficiency of the codes. A pilot scale test of the codes will use results from an intermediate scale experiment being conducted at Los Alamos.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-93-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-02-06
   CE:
   CONST:
6. IDENTIFICATION NO: AL-2026-01/06-30
7. ACTIVITY NO: 2.5.1.02.0009
8. ACTIVITY TITLE: Unsaturated Zone Transport: Organic Tracers
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA, CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		125	648	1623	1761	1605	1025
Capital:							
Construction							
Equipment							
GPP							
Total		125	648	1623	1761	1605	1025
RD&D (Non add)							
Operating		125	648	1623	1761	1605	1025
Capital:							
Construction							
Equipment							
GPP							
Total		125	648	1623	1761	1605	1025

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $6787K

14. KEY WORDS: CERCLA/SARA FS

15. ACTIVITY DESCRIPTION:

See Number 22, RD&D description.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RD&D	October 1989
Finish of RD&D	September 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This also has application to waste management programs. Transport of organics via vapor phase and episodic groundwater incursion has not been studied. Models calculating the performance assessements for meeting DOE orders and Federal and State regulations have not been validated for these modes of organic chemical transport.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The ability exists to synthesize the appropriate stable-element-labelled organic tracers. The application to in-field settings has yet to be performed. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

Little is known about the transport of organics via vapor phase and episodic groundwater incursion at DOE sites. The migration of organics (particularly chlorinated hydrocarbons) into the air and water supplies is of concern. Mitigation efforts aimed at effective control strategies need to be developed for cleanup or containment implementation, but to accomplish control, a fundamental understanding of the transport rates for these compounds and the site variability is needed. The effects of changing barometric pressure, variable temperature gradients, precipitation variability, and the geological setting need to be considered with regard to the organic contaminant transport.

The objective of this project is to develop a rigorous field test methodology, data base, and validated model for fluid, vapor, and contaminant transport in unsaturated systems. This requires an integrated, two-pronged approach leading from laboratory systems to experiments under field conditions.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-93-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-2029-01/ 06-30
7. ACTIVITY NO: 2.5.1.02.0010

8. ACTIVITY TITLE: In Situ Treatment of Groundwater or Soil (RFP)

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA/CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			121	121	363	242	242
Capital:							
Construction							
Equipment							
GPP							
Total			121	121	363	242	242
RD&D (Non add)							
Operating			121	121	363	242	242
Capital:							
Construction							
Equipment							
GPP							
Total			121	121	363	242	242

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $

14. KEY WORDS: In situ, Groundwater, Underground

15. ACTIVITY DESCRIPTION:

A large variety of in situ methods are being developed to clean up water and soil underground. Even when removal is desired, the immobilization or separation of some of the hazardous constituents is desirable. This task would look at vitrification, biological methods, soil flushing, vacuum extraction, and others to find ways to minimize risk and cut the costs associated with large surface area remedial actions.

16. MILESTONE SCHEDULE (by fiscal year):

Systems analysis of applicable technology	10/90
Feasibility of cement and complete organic barriers determined	5/91
Preliminary in-situ vitrification tests	10/92
Preliminary testing of biological treatments	2/93
Demonstration of chosen technologies begin	10/95

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding supports R & D labor and expense through FY 1995. If preliminary testing is successful, some capital equipment could be required in the 1994-5 time frame.

18. PRIORITY RATIONALE:

Required for RCRA compliance and also will reduce the volume of waste that needs to be shipped.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Pre-conceptual estimates only.

20. ACCOMPLISHMENTS TO DATE:

This is a new task.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

Proceed with expensive efforts to excavate and transport soil.

22. RD&D DESCRIPTION:

A large variety of in situ methods are being developed to clean up water and soil underground. Even when removal is desired, the immobilization or separation of some of the hazardous constituents is desirable. This task would look at vitrification, biological methods, soil flushing, vacuum extraction, and others to find ways to minimize risk and cut the costs associated with large surface area remedial actions.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-93-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-2031-01/ 06-30
7. ACTIVITY NO: 2.5.1.02.0011

8. ACTIVITY TITLE: Site Restoration Development (RFP)

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA/CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			121	242			
Capital:							
Construction							
Equipment				300			
GPP							
Total			121	542			
RD&D (Non add)							
Operating			121	242			
Capital:							
Construction							
Equipment				300			
GPP							
Total			121	542			

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,026K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

A number of old waste sites with peculiar problems such as decaying equipment and drums are likely to be found as environmental restoration proceeds. Techniques to remove these objects and restore the site to its original condition need to be developed. Restoring sites to a condition that will not erode and is aesthetically acceptable is desired. Selective vegetation studies that could be used over ground that is left "as is" would also be studied as part of this task.

16. MILESTONE SCHEDULE (by fiscal year):

Investigate selective vegetation	10/90
Development of extraction, compaction, and shredding of buried drums	8/91
Evaluation of mechanical devices for excavation, sweeping, and grouting	9/93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

$300K capital equipment for FY 1992 to purchase mechanical testing equipment such as sweepers and other remote equipment.

18. PRIORITY RATIONALE:

Required under current RCRA restoration regulation.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Pre-conceptual estimate.

20. ACCOMPLISHMENTS TO DATE:

This is a new project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-93-01
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-2030-01/06-30
7. ACTIVITY NO: 2.5.1.02.0012
8. ACTIVITY TITLE: Soil Counting System (RFP)
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA/CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			121	242	242		
Capital:							
Construction							
Equipment				300			
GPP							
Total			121	542	242		
RD&D (Non add)							
Operating			121	242	242		
Capital:							
Construction							
Equipment				300			
GPP							
Total			121	542	242		

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $

14. KEY WORDS: Assay, Soil, Decontamination

15. ACTIVITY DESCRIPTION:

This system will be required to verify that the soil has been adequately decontaminated. Major development efforts will be necessary if a total verification of all material is required rather than the verification of small representative samples.

16. MILESTONE SCHEDULE (by fiscal year):

Complete literature search, preliminary conceptual design	10/90
Procure and test equipment	2/92
Complete initial prototype system	6/93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

R & D labor for three years, plus $300K for prototype counting equipment in FY 1992.

18. PRIORITY RATIONALE:

Counters are needed to verify extent of clean up in contaminated soil areas. Clean up must be done under current RCRA regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Pre-conceptual estimates.

20. ACCOMPLISHMENTS TO DATE:

Some preliminary concepts have been developed, but there is no current effort.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

Use laboratory counting systems.

LONG RANGE:

22. RD&D DESCRIPTION:

This system will be required to verify that the soil has been adequately decontaminated. Major development efforts will be necessary if a total verification of all material is required rather than the verification of small representative samples.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-93-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-2032-01/06-30
7. ACTIVITY NO: 2.5.1.02.0013
8. ACTIVITY TITLE: Enriched UR Detection in the Presence of PU
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA/CERCLA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	56	56	121	363			
Capital:							
Construction							
Equipment				1000			
GPP							
Total	56	56	121	1363			
RD&D (Non add)							
Operating	56	56	121	363			
Capital:							
Construction							
Equipment				1000			
GPP							
Total	56	56	121	1363			

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,322K

14. KEY WORDS: Uranium, Plutonium, Detection, Assay

15. ACTIVITY DESCRIPTION:

Development of a system capable of measuring uranium in the presence of plutonium. These systems will be needed to verify that a large amount of uranium is not being masked by a small quantity of plutonium for many of the dump sites used for materials containing both elements, particularly those with oil contamination from machining processes. The techniques to do assays of the two materials contained in the same waste stream will need considerable research effort.

16. MILESTONE SCHEDULE (by fiscal year):

Early conceptual designs tested on segmented package containers	10/90
Procure equipment for prototype system	7/91
Testing of prototype system complete	9/92
Implementation of technology	12/93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

$1M in FY 1992 to purchase detection instrumentation; the remaining is R & D labor.

18. PRIORITY RATIONALE:

Decreases risks of operation and assists in the sorting and compliance activities.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Estimate based on earlier work with similar instrument development.

20. ACCOMPLISHMENTS TO DATE:

A small effort to develop this capability on segmented package containers is ongoing. This is a prototype effort to test the concept used for detection and justification.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

RD&D
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.7.1.2 Waste Research, Development, and Demonstration—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

The Los Alamos environmental RD&D programs in support of Waste Management are designed to provide tools and methodologies for compliance with DOE Orders and state and Federal solid waste regulations. The program is aimed at the following areas:

1) Measurements and monitoring of existing and future waste sites and real time remedial action measurements;

2) Development of calculational methods in the form of computer codes for calculations needed to compare alternative actions;

3) Development of in site remedial action technologies to avoid having to dig or move wastes;

4) Demonstration of long-term closure methods for low-risk, old waste areas;

5) Development of waste minimization or waste treatment methods to avoid future waste problems.

The program is aimed at helping any corrective actions needed at Albuquerque Operations Office (ALO) sites, methods to reduce risk end costs of environmental restoration and waste management at ALO facilities. Since ALO facilities have many problems similar to other DOE facilities, the program is aimed at broader solutions that may help DOE and even DoD facilities.

Goals and Objectives

The Los Alamos technology development program has several goals:

- For radioactive wastes, performance assessment tools to meet waste minimization and long-term containment criteria;
- Treatment or elimination of hazardous waste so waste management becomes less costly;
- Treatment of mixed wastes to eliminate the hazardous waste components;
- Development of technologies to allow in situ remedial actions for RCRA 3004 (u) or CERCLA/SARA;
- Providing the above technologies with supporting measurement and calculational methods that are permitted by a State or EPA.

Strategies

The RD&D program at Los Alamos is developing both short-term methods and technologies for corrective actions and development of technologies for long-term waste management problems.

To obtain appropriate funding for addressing the five areas of program effort, we are working with the DOE HAZWRAP programs, DOE environmental restoration agencies, the Environmental Protection Agency and the joint efforts of other DOE National Laboratories. Projects are proposed as a mix of technologies that yield both short-term and long-term solutions. As examples of shorter-term solutions ready for field demonstration on real waste problems, we have an instrument system ready for field real-time measurements and two DOE-funded waste site closure demonstration projects. Treatment technologies for organic wastes include DOE and DoD supercritical water systems, microwave treatment, and plasma waste destruction technologies for liquid and solid hazardous or mixed wastes. Results of these technologies are expected in 3-5 years. Calculational methods need verification for application to performance assessment or predictions supporting alternative actions for environmental restoration or waste management programs. Process modification studies for waste elimination or minimization are utilizing computer based "expert systems" for modification and optimization of new materials process systems.

Another approach being used is evaluation of the site characterization tools being developed for the Yucca Mountain Project. As an example, the computer code TRACE-3D is being used for low-level mixed waste site assessment a Los Alamos and the Idaho National Engineering Laboratory (INEL).

Organization

RD&D projects at Los Alamos are conducted in those Divisions (disciplines) proposing projects that meet the needs of DOE HAZWRAP, DoD agencies, EPA, or other federal agencies. Program management is conducted out of an organization aimed at an integrated program that provides program coordination; needs assessments for environmental restoration and waste management; and follow-up of funding agency needs. Currently, the Program Manager for Environment resides in the LANL Energy and Technology Initiatives Office. Some reorganization is planned to provide added program integration and to provide a suite of measurement, calculational, and treatment technologies coordinated with environmental restoration and waste management needs. Problems needing RD&D are identified by the environmental restoration program and the operational waste management program. The Laboratory participates in the DOE needs assessment efforts of HAZWRAP.

Site Specific Definitions and Assumptions

None.

Major Driving Factors

Immediate Risks

Environmental contamination sites in the DOE complex are perceived as health risks by some members of the public. Rapid resolutions of contaminated sites needs to be developed. A search for existing technologies to aid in the cleanup of these sites is underway.

Agreements

In the process of developing agreements for environmental restoration or waste management corrections DOE could use some of the environmental problems as opportunities to demonstrate new technologies. The standard state and EPA evaluations for permitting would need to be included.

Federal and State Laws, Regulations, and DOE Orders

The application of new technologies to DOE environmental restoration and waste management sites may meet some regulatory resistance. The DOE may need to set up agreements with some states or EPA Regions that equal the EPA Site Innovative Technology Evaluation (SITE) Program.

Status

Proactive Approaches

Treatment technologies eliminating the hazardous component of mixed waste could result in only an AEA-regulated waste. The delisting of trace EPA listed wastes can relieve dual regulation.

Major Constraints

RD&D constraints are sufficient funding to move technologies fast enough; demonstration opportunities; and the need for R&D permits for more than treatment technologies (i.e., pilot or demonstration projects).

Major Problems and Resolution Efforts

RD&D problems are usually associated with the risks of application of a new technology. Yet DOE has many environmental restoration and waste management problems that provide opportunities for applications on large, secure federal reservations. These technology demonstration opportunities are similar or identical to the environmental problems of DoD and U.S. industry. Resolution of these problems is possible by working with states, EPA Regions, or creation of new legislative directives for RCRA and CERCLA/SARA that encourage demonstrations of new technologies.

Summary

The summary table that follows provides schedules, priorities, and funding.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: RESEARCH, DEVELOPMENT AND DEMONSTRATION

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 3															
371020009	4048	DEMONSTRATION OF SUPERCRITICAL WATER OXIDATION PH4	WM	RDD	3	GF730151 39GF7301B	GF02 39GF02	4430	670	808	777	1675	500	0	0
371020008	4050	DISPOSAL OF HAZ ORGANIC WASTES -PLASMA DESTRUCTION	WM	RDD	3	GF730151 35GF7301B	GF02 35GF02	2040	0	325	325	325	340	355	370
371020002	4047	DEMONSTRATION OF GAS CYLINDER DISPOSAL PHASE IV	WM	RDD	3	GF730151	GF02	1915	185	300	500	310	310	310	0
371020010	4059	SUPERCRITICAL WATER OXIDATION OF HAZARDOUS WASTES	WM	RDD	3	GF730151 35GF7301B	GF02 35GF02	1774	255	269	250	250	250	250	250
371020003	4054	MICROWAVE FLUID BED DETOXIFICATION OF HAZ WASTE	WM	RDD	3	GF730151 35GF7301B	GF02 35GF02	675	0	90	335	250	0	0	0
371020014	4058	RH WASTE IMAGING	WM	RDD	3	GF730151 35GF7301B	GF02 35GF02	290	0	0	290	0	0	0	0
371020012	4057	RH NDA DEVELOPMENT	WM	RDD	3	GF730151	GF02	250	182	68	0	0	0	0	0
371020001	4049	DEVELOPMENT OF CYLINDER GAS DISPOSAL PHASE II	WM	RDD	3	GF730151	GF02	165	90	75	0	0	0	0	0
371020013	4080	TRU WASTE REDUCTION SCREENING	WM	RDD	3	GF730151 35GF7301B	GF02 35GF02	110	0	0	110	0	0	0	0
* Subsubtotal *								11649	1382	1935	2587	2810	1400	915	620
** Subtotal **								11649	1382	1935	2587	2810	1400	915	620

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-4049-01/06-30

7. ACTIVITY NO: 3.7.1.02.0001 01

8. ACTIVITY TITLE: Development of Cylinder Gas Disposal Phase II

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating:	90	75					
Capital:							
Construction							
Equipment							
GPP							
Total	90	75					
RD&D (Non add)							
Operating	90	75					
Capital:							
Construction							
Equipment							
GPP							
Total	90	75					

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $165K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

FY 90 Finalize evaluation of commercially available technologies for incorporation into demonstration phase.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 funding in place.
FY 90 funding based on guidance from DOE HAZWRAP.

18. PRIORITY RATIONALE:

Promotes compliance by providing a method for handling and sampling leaking or damaged gas bottles containing hazardous gases. Current disposal methods do not meet air quality regulations. Reduces risk by bringing gas bottle handling to the bottle rather than transporting leaking or damaged bottle to another location.

19. LEVEL OF CONFIDENCE & RATIONALE:

Level of confidence is low. Preconceptual designs completed. Studies of commercial systems patent and licensing constraints complete.

20. ACCOMPLISHMENTS TO DATE:

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

The purpose of this program is to acquire, test, and document a process for the safe disposal of the contents of leaking, unknown, or damaged gas cylinders. The work includes the development and testing of a process to recontainerize the contents from problem gas cylinders into safe cylinders, which are then acceptable for shipment and/or other handling before disposal of the contents.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-4047-01/ 06-30

7. ACTIVITY NO: 3.7.1.02.0002 02

8. ACTIVITY TITLE: Demonstration of Gas Cylinder Disposal Phase IV

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating:	185	300	500	310	310	310	
Capital:							
Construction							
Equipment							
GPP							
Total	185	300	500	310	310	310	
RD&D (Non add)							
Operating	185	300	500	310	310	310	
Capital:							
Construction							
Equipment							
GPP							
Total	185	300	500	310	310	310	

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,915K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

FY 90 Finalize evaluation of commercially available technologies for incorporation into demonstration phase.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 funding in place.
FY 90 funding based on guidance from DOE HAZWRAP.

18. PRIORITY RATIONALE:

Promotes compliance by providing a method for handling and sampling leaking or damaged gas bottles containing hazardous gases. Current disposal methods do not meet air quality regulations. Reduces risk by bringing gas bottle handling to the bottle rather than transporting leaking or damaged bottle to another location.

19. LEVEL OF CONFIDENCE & RATIONALE:

Level of confidence is high. Much of the equipment needed is commercially available. Design for adaption to truck mounted skids and accompanying sample gear completed.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

The purpose of this program is to acquire, test, and document a process for the safe disposal of the contents of leaking, unknown, or damaged gas cylinders. The work includes the development and testing of a process to recontainerize the contents from problem gas cylinders into safe cylinders, which are then acceptable for shipment and/or other handling before disposal of the contents. The technology will be obtained through Earth Resources Corporation or Integrated Environmental Services, co-holders of the patent on the only available proved process. This technology will be modified to develop a process more suitable to the needs of DOE facilities.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: RD&D
5a. PROGRAM B&R CODE:
   OPER: GF-73-01-51
   CE: 35-GF-73-01-B
   CONST: 39-
5b. OLD B&R CODE:
   OPER: GF-02
   CE: 35-GF-02-06
   CONST: 39-
6. IDENTIFICATION NO: AL-4054-01/06-30
7. ACTIVITY NO: 3.7.1.02.0003 03
8. ACTIVITY TITLE: Microwave Fluid Bed Detoxification of Hazardous Waste
9. CATEGORY: CA: ER: WM: X
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating:		80	250	250			
Capital:							
Construction							
Equipment		10	85				
GPP							
Total		90	335	250			
RD&D (Non add)							
Operating		80	250	250			
Capital:							
Construction							
Equipment		10	85				
GPP							
Total		90	335	250			

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $675K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Procure, fabricate, assemble and test equipment	FY 90
Investigate operational parameter	FY 91
Determine destruction efficiencies for halocarbons	FY 91
Conduct pilot scale tests on actual wastes	FY 92

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance from DOE HAZWRAP.

18. PRIORITY RATIONALE:

Methods for destruction of halocarbons and other toxic organics in DOE wastes streams are required to allow disposal of wastes as a nonhazardous material to meet DOE Orders, and Federal and state regulations.

19. LEVEL OF CONFIDENCE & RATIONALE:

Level of confidence is medium. Preliminary tests of microwave applications to wastes have indicated high destruction efficiencies for chlorinated hydrocarbons. Preconceptual design completed.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

It is proposed to conduct and complete experimental investigations over a period of three years on the use of microwaves for complete detoxification of halocarbon waste streams in three stages: (1) start-up efforts involving equipment fabrication and testing for microwave-induced-plasma-fluid-bed (MIPFB) and microwave-assisted-fluid/packed-bed (MFB) systems, (2) R&D on MIPFB process for the oxidation/incineration of wastes, and (3) Pilot Plant testing of MFB treatment of halohydrocarbon waste streams listed in HAZWRAP program priorities.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-GF-73-01-B

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-GF-02

CONST: 39-

6. IDENTIFICATION NO: AL-4050-01/06-30

7. ACTIVITY NO: 3.7.1.02.0008 08

8. ACTIVITY TITLE: Disposal of Hazardous Organic Wastes Through Plasma Destruction

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		225	325	325	340	355	370
Capital:							
Construction							
Equipment		100					
GPP							
Total		325	325	325	340	355	370
RD&D (Non add)							
Operating		225	325	325	340	355	370
Capital:							
Construction							
Equipment		100					
GPP							
Total		325	325	325	340	355	370

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,040K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Installation of analysis equipment and proof of principle demonstration	FY 90
Proof of principle with PCB oils	FY 91
Demonstration of effluent and emissions monitoring with pilot scale demonstration	FY 92

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 90 and FY 91 budget guidance from DOE HAZWRAP.

18. PRIORITY RATIONALE:

Incineration of high-hazard organics such as PCBs, pesticides, and other carcinogens is meeting public resistance during permitting. This system achieves much higher temperatures with direct coupling of the waste stream into the plasma. The system will reduce risk by complete destruction of the wastes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is low. Preconceptual design tests have shown feasibility for direct coupled plasma systems that can be truck mounted. Temperatures of 10,000 degrees Kelvin are able to convert any material to its elemental forms.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

The objectives of this proposal are twofold: namely to develop a plasma destruction process for a wide class of hazardous organic wastes (PCBs, pesticide residues, and spent solvents) and to develop a real-time diagnostic for certifying the effluents from the plasma destruction to comply with federal regulatory standards. Recent work with the shielded plasmas at Los Alamos has shown that an environmentally safe, effective means for the disposal of such wastes may exist. The fireball in the shielded plasma routinely achieves conditions of temperature and electron density that are highly effective in dissociating virtually any known organic molecular bond.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-

CONST: 39-GF-73-01-B

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-

CONST: 39-GF-02

6. IDENTIFICATION NO: AL-4048-01/ 06-30

7. ACTIVITY NO: 3.7.1.02.0009 09

8. ACTIVITY TITLE: Demonstration of Supercritical Water Oxidation Phase IV

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	500	808	777	1675	500		
Capital:							
Construction							
Equipment							
GPP	170						
Total	670	808	777	1675	500		
RD&D (Non add)							
Operating	500	808	777	1675	500		
Capital:							
Construction							
Equipment							
GPP	170						
Total	670	808	777	1675	500		

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $4,430K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Obtain R&D environmental permits	FY 89
Determine destruction efficiencies for Los Alamos Wastes	FY 90
Determine destruction efficiencies for Rocky Flats Wastes	FY 91
Demonstration on actual Los Alamos Wastes	FY 92
Demonstration on actual Rocky Flats Wastes	FY 93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 funding is in place.
FY 90 and FY 91 budget estimates based on guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This technology also addresses treatment of Environmental Restoration wastes. The Priority 3 is based on the technology reducing the risk of environmental restoration and waste management handling of hazardous materials. Anticipated destruction efficiencies will allow delisting of some wastes, thus reducing costs.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is medium. Preconceptual designs of two reactor types to implement the technology are underway. A working experimental laboratory system exists. This apparatus will be used to determine the destruction efficiencies of Los Alamos and Rocky Flats wastes to provide operating parameters.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

This HAZWRAP Compliance Technology Task will prepare for and conduct a demonstration of supercritical water oxidation technology on a RCRA waste, in particular, a bulked nonhalogenated solvent waste at Los Alamos. In addition, a portable apparatus will be constructed for a demonstration on a machining waste stream containing water soluble machining fluids from Rocky Flats Plant, or an equivalent waste stream. The key objective of this demonstration is to show feasibility of the concept. Secondary objectives are to gather data for design and for making cost estimates with the goal of applying the process to other DOE waste streams.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-GF-73-01-B

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-GF-02

CONST: 39-

6. IDENTIFICATION NO: AL-4059-01/06-30

7. ACTIVITY NO: 3.7.1.02.00010 10

8. ACTIVITY TITLE: Supercritical Water Oxidation of Hazardous Wastes, Phase II

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, CERCLA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	224	269	250	250	250	250	250
Capital:							
Construction							
Equipment	31						
GPP							
Total	255	269	250	250	250	250	250
RD&D (Non add)							
Operating	224	269	250	250	250	250	250
Capital:							
Construction							
Equipment	31						
GPP							
Total	255	269	250	250	250	250	250

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,774K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Report on kinetics of methanol	FY 89
Report on kinetics of hydrocarbons and oxygenates	FY 90
Report on Oxidation effects on machine parts	FY 91

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 funding is in place.
FY 90 and FY 91 budget estimates based on guidance of DOE HAZWRAP.

18. PRIORITY RATIONALE:

This technology also addresses treatment of Environmental Restoration wastes. The Priority 3 is based on the technology reducing the risk of environmental restoration and waste management handling of hazardous materials. Anticipated destruction efficiencies will allow delisting of some wastes, thus reducing costs.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is low. Preconceptual designs of two reactor types to implement the technology are underway. The acquisition of kinetics data provides the operation parameters for different waste forms and compounds.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

The HAZWRAP Research and Development Task is investigating the chemical reactions occurring during oxidation of organic compounds in supercritical water. The investigation of chemical reactions includes determination of the reaction kinetics of appropriate model and hazardous organic compounds under supercritical conditions and the reaction mechanisms for the oxidation. If reaction mechanisms are found to be similar to those of oxidation in the gas phase, an extensive body of data exists that can be used in applying this technology.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-4057-01/06-30
7. ACTIVITY NO: 3.7.1.02.0012 12
8. ACTIVITY TITLE: RH NDA Development
9. CATEGORY: CA: ER: WM: X
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	182	68					
Capital:							
Construction							
Equipment							
GPP							
Total	182	68					
RD&D (Non add)							
Operating:	182	68					
Capital:							
Construction							
Equipment							
GPP							
Total	182	68					

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $250K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Complete modification and working calibration of the DDT-type RH device	4/89
Begin side-by-side comparisons of the DDT and CTEN devices on RH waste	6/89
Complete assay of Los Alamos RH waste and evaluation of assay devices	9/90

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 89 182K
FY 90 68K

18. PRIORITY RATIONALE:

Will reduce worker exposure to radionuclides and improve compliance with DOE 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is medium. These are current, ongoing RD&D projects.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

The purpose of this task is to complete development of two RH waste assay devices and perform assay measurements on the Los Alamos RH waste before canisterization, which may begin in mid-1989. The DDT-type waste assay device currently at the CMR building will be modified to improve its accuracy and calibration measurements completed.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-GF-73-01-B

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-GF-02

CONST: 39-

6. IDENTIFICATION NO: AL-4060-01/06-30

7. ACTIVITY NO: 3.7.1.02.0013 13

8. ACTIVITY TITLE: TRU Waste Reduction Screening

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			100				
Capital:							
Construction							
Equipment			10				
GPP							
Total			110				
RD&D (Non add)							
Operating:			100				
Capital:							
Construction							
Equipment			10				
GPP							
Total			110				

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $110K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Obtain instrument	11/89
Preliminary evaluation at LLNL	2/90
Begin trial period	6/90
Final evaluation and recommendation	9/90
Start follow-on program at other DOE facilities	11/90

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

FY 91	OP	100K
	CE	10K
Total		110K

18. PRIORITY RATIONALE:

Will reduce worker exposure to radionuclides and improve compliance with DOE 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is medium. These are current, ongoing RD&D projects.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE: >

22. RD&D DESCRIPTION:

A number of DOE facilities (Rocky Flats, Livermore, Los Alamos) have expressed an interest in using fast, smart instrumentation to screen newly generated waste for TRU content. This differential die-away (active neutron) instrument can perform this function but it is costly, slow, and overly large for the scenario we depict.

For several years the LANL has been developing a small, lightweight instrument for the purpose of detecting plutonium. This instrument has matured to a level that allows it to be made available commercially. We believe the instrument has potential to solve the screening problem at DOE plutonium facilities.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: RD&D

5a. PROGRAM B&R CODE:

OPER: GF-73-01-51

CE: 35-GF-73-01-B

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-02

CE: 35-GF-02

CONST: 39-

6. IDENTIFICATION NO: AL-4058-01/06-30

7. ACTIVITY NO: 3.7.1.02.0014 14

8. ACTIVITY TITLE: RH Waste Imaging

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			265				
Capital:							
Construction							
Equipment			25				
GPP							
Total			290				
RD&D (Non add)							
Operating:			265				
Capital:							
Construction							
Equipment			25				
GPP							
Total			290				

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $290K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

16. MILESTONE SCHEDULE (by fiscal year):

Complete assembly of detectors and data acquisition and control cables	6/91
Complete measurements on mock-up of drums	9/91

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on best professional judgment of staff.

18. PRIORITY RATIONALE:

Will contribute to reduction of worker dose and ensure compliance with DOE 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is medium. These are current, ongoing RD&D projects.

20. ACCOMPLISHMENTS TO DATE:

New initiative

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

The purpose of this task is to test the feasibility of using an electron LINAC to perform tomographic imaging of fissile materials within closed containers. This recently proposed method would use bremsstrahlung gamma rays to induce photofission in the sample, providing positive identification of both fertile and fissile elements. This work will put the DOE in a better position to provide assay equipment to waste generators.

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 3
Environmental Restoration

Remediation
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

2.3.1.2 Remediation—Los Alamos National Laboratory

Objective, Goals, and Strategy

The primary objective of the Los Alamos National Laboratory (LANL) remediation phase of the ER Program is to implement Defense Program (DP) requirements for restoration and clean-up of inactive waste sites. The ultimate goal of the program is to bring identified sites into compliance with environmental laws and regulations that govern environmental restoration at LANL.

In carrying out the mission of LANL, four types of hazardous waste have been generated: (1) wastes from processing operations, (2) wastes from research and development (R&D) activities, (3) high-explosive waste, and (4) wastes from decontamination and decommissioning (D&D). Each of these general waste types has unique characteristics. Wastes from processing operations typically consisted of significant volumes of material that contain a limited number of contaminants, including radionuclides, solvents, organics, and metals. Treated and untreated liquid process streams were discharged to the canyons. Wastes from R&D, however, were usually smaller volumes of different laboratory reagents, chemicals, solvents, metals, radionuclides, and other general laboratory wastes. In addition, the composition and concentration of the contaminants in a given process waste were generally uniform, unless modifications to the process were made. Conversely, the waste constituents from R&D activities continually varied depending on the nature of the rapidly changing R&D efforts of the Laboratory. High-explosive wastes consisted of a fairly constant narrow assemblage of chemicals in varying concentrations, including barium and other metals. D&D wastes typically consisted of large quantities of building debris which were contaminated with radionuclides and in some instances, high-explosive residuals. Laboratory wastes were typically disposed in material disposal areas which consisted of trenches, pits, and shafts.

To achieve the goal of restoration and clean-up of inactive waste sites, assessments of remediation alternatives and selection of technically appropriate remediation designs for restoring the sites at Los Alamos will be conducted under both RCRA and CERCLA. The remediation process will implement the of action selected during the remedial alternatives analysis.

Definitions and Assumptions

To implement the remediation portion of the Los Alamos ER program a new remediation section was established within the Heath, Safety, and Environment Division at Los Alamos to begin the necessary planning, permitting, and contract negotiations. The current efforts are focused on negotiations with EPA Region VI and NMEID for the RCRA permit expected to be issued November, 1989. In addition several RCRA Closures are pending approval with NMEID. Two closures are expected to be completed in FY 89 through the remediation section.

Another major project has been to carefully centralize the database for the site remediations and compliance negotiations to eliminate duplication and confusion between the various programs at Los Alamos and DOE during interactions with the regulators.

The remediation (hazardous and mixed waste sites) critical path has been recently determined to be the permitting and construction of a RCRA-permitted mixed-waste disposal facility at LANL. LANL proposes to construct the facility in phases to match the needs of the DOE AL ER program as sites are remediated and RCRA-regulated wastes generated. It is anticipated that the mixed-waste disposal facility will be operational by FY 1992.

For the five-year plan, the tasks and activities were split into two components: the assessment phase and the remediation phase. These two phases were then ranked from 1-4 using the five-year plan priority system. There are no Priority 1s or 4s at LANL for remediation. Priority 2 applies to all tasks necessary to ensure that state and federal regulatory requirements are met and require funding in FY 1991. Priority 3 applies to tasks that have regulatory drivers, but do not have identified funding for FY 1991.

Major Driving Factors

The technical strategy for accomplishing the DOE AL ER program goals for LANL is directly connected with the regulatory drivers. The major regulatory driver for LANL is the RCRA operating permit, which is expected to be issued November 1989. The RCRA operating permit will require LANL to prepare a single, installation-wide work plan within 180 days which contains an annually updated work schedule.

Presently, LANL is not an NPL site under CERCLA. LANL may be rescored by EPA in the future.

Current Status

The remedial action portion of LANL's DOE AL ER Program is still in its infancy. A review of the funding requests (see activity data sheets) shows that major funding for remediation does not occur until FY 93 for the RCRA/CERCLA tasks and is limited in FY 89 to the RCRA Closures.

Summary

An assessment summary for LANL has been prepared. This summary includes funding summaries by task and by program priority.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - REMEDIATION ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
231020004	1150	TA-54 AREA L WASTE OIL ETC. REMED. (AL-LA-RC-2)	ER	R	1	GF728902	GF11	100	100	0	0	0	0	0	0
231020005	1127	TA-35 WASTE OIL STORAGE PIT ETC. REM. (AL-LA-RC-3)	ER	R	1	GF728902	GF11	100	100	0	0	0	0	0	0
231020027	1091	TA-16 BURNING GND SURFACE ETC. REMED. (AL-LA-RC-1)	ER	R	1	GF728902	GF11	100	100	0	0	0	0	0	0
* Subsubtotal *								300	300	0	0	0	0	0	0
* PRIORITY: 2															
231020026	1151	TA-54 AREAS & CLOSURE REMEDIATION (AL-LA-RC-7)	ER	R	2	GF728902	GF11	112790	0	50	790	4540	5810	5740	6540
231020015	1103	TA-21 MAT'L DISPOSAL AREAS A,B,U,V REM (AL-LA-8-2)	ER	C/R	2	GF729102	GF11	96810	0	0	0	0	0	0	250
231020019	1077	TA-1 CONTAM AREAS STRUC. TOWNSITE REM (AL-LA-11)	ER	C/R	2	GF729102	GF11	84260	0	0	0	0	0	0	250
231020023	1143	TA-49 SURFACE STRUCTURE REMEDIATION (AL-LA-51)	ER	C/R	2	GF729102	GF11	64450	0	0	0	0	0	0	200
231020007	1048	CANYONS REMEDIATION (AL-LA-1)	ER	C/R	2	GF729102	GF11	64370	0	0	0	0	0	0	250
231020011	1146	TA-50 MATERIAL DISPOSAL AREA C REM (AL-LA-5)	ER	C/R	2	GF729102	GF11	57040	0	0	0	0	0	250	250
231020014	1102	TA-21 MAT'L DISPOSAL AREA T REMED. (AL-LA-8-1)	ER	C/R	2	GF729102	GF11	38440	0	0	0	0	0	0	250
231020009	1121	TA-33 BLDGS & OUTFALLS REMEDIATION (AL-LA-3)	ER	C/R	2	GF729102	GF11	29880	0	0	0	0	0	250	250
231020025	1087	TA-15 FIRING POINTS, A,B,G,DARHT REM (AL-LA-22)	ER	C/R	2	GF729102	GF11	25850	0	0	0	0	0	3800	3800
231020037	1080	TA-10, FIRING SITES REMEDIATION (AL-LA-15)	ER	C/R	2	GF729102	GF11	20520	0	0	0	0	0	250	250
231020013	1133	TA-4,5,35,52 REMEDIATION (AL-LA-7)	ER	C/R	2	GF729102	GF11	18620	0	0	0	0	0	250	250
231020030	1075	TA-0, TOWNSITE AREAS REM (AL-LA-26)	ER	C/R	2	GF729102	GF11	16160	0	0	0	0	0	250	250
231020017	1101	TA-21 BLDGS OUTFALLS & SPILLS REM (AL-LA-10-1)	ER	C/R	2	GF729102	GF11	13070	0	0	0	0	0	250	250
231020012	1128	TA-35,42,48,55 REMEDIATION (AL-LA-6)	ER	C/R	2	GF729102	GF11	11210	0	0	0	0	0	200	200

PREDECISIONAL DRAFT
PREDECISIONAL DRAFT

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - REMEDIATION ONLY

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
231020016	1105	TA-21 SUBSURF STRUC. REMEDIATION (AL-LA-9)	ER	C/R	2	GF729102	GF11	7120	0	0	0	0	0	250	250
231020024	1137	TA-49 SURFACE STRUCTURES (AL-LA-52) REMEDIATION	ER	C/R	2	GF729102	GF11	5710	0	0	0	0	0	0	200
231020008	1123	TA-33 MAT'L DISPOSAL AREAS REMEDIATION (AL-LA-2)	ER	C/R	2	GF729102	GF11	4990	0	0	0	0	2000	2000	490
231020010	1124	TA-33 SUBSURF STRUC. REMEDIATION (AL-LA-4)	ER	C/R	2	GF729102	GF11	3150	0	0	0	0	0	250	250
231020031	1076	TA-0, TOWNSITE AREAS REM (AL-LA-27)	ER	C/R	2	GF729102	GF11	3020	0	0	0	0	0	250	250
231020001	1090	TA-16 AREA P LANDFILL CLOSURE REM. (AL-LA-RC-4)	ER	R	2	GF728902	GF11	3020	0	1430	1590	0	0	0	0
231020018	1104	TA-21 OUTFALL BLDGS & SPILLS REM (AL-LA-10-2)	ER	C/R	2	GF729102	GF11	2130	0	0	0	0	0	250	250
231020028	1063	INTERIM REMEDIAL MEASURES-REMEDIATION (AL-LA-57)	ER	C/R	2	GF729102	GF11	2070	0	70	270	70	450	450	760
231020029	1074	TA-0, TOWNSITE AREAS REM (AL-LA-25)	ER	C/R	2	GF729102	GF11	1890	0	0	0	0	0	250	250
231020020	1081	TA-11,13,16,24,25 OUTFALLS ETC REM (AL-LA-12)	ER	C/R	2	GF729102	GF11	1540	0	0	0	0	0	250	250
231020033	1113	TA-26, CONTAMINATED AREAS REMEDIATION (AL-LA-43)	ER	C/R	2	GF729102	GF11	1330	0	0	0	0	0	250	250
231020036	1139	TA-45, TREATMENT PLANT REMEDIATION (AL-LA-53)	ER	C/R	2	GF729102	GF11	1020	0	0	0	0	0	200	200
231020032	1120	TA-32, CONTAMINATED AREAS REMEDIATION (AL-LA-40)	ER	C/R	2	GF729102	GF11	490	0	0	0	0	0	110	100
231020035	1118	TA-31, CONTAMINATED AREAS REM (AL-LA-49)	ER	C/R	2	GF729102	GF11	350	0	0	0	0	0	150	200
231020034	1097	TA-19, CONTAMINATED AREAS REMEDIATION (AL-LA-45)	ER	C/R	2	GF729102	GF11	320	0	0	0	0	0	120	200
231020006	1135	TA-40 SCRAP DETONA. SITE CLOSURE REM. (AL-LA-RC-5)	ER	R	2	GF728902	GF11	210	0	210	0	0	0	0	0
* Subsubtotal *								691830	0	1760	2650	4610	8260	16020	17140
* PRIORITY: 3															
231020003	1067	RCRA MIXED WASTE DISPOSAL FACILITY (AL-LA-RC-9)	ER	C/R	3	GF729102	GF11	1190	0	660	3460	2200	2000	2340	1240

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: C, R, C/R, U - REMEDIATION ONLY

ACTIVITY NUMBER	DATA ACTIVITY TITLE SHT	PROG ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
* Subsubtotal *						1190	0	660	3460	2200	2000	2340	1240
** Subtotal **						693320	300	2420	6110	6810	10260	18360	18380

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Remediation
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-RC-1 TA-16, burning ground surface impoundment closure	October 1988	September 1989
AL-LA-RC-2 TA-54, Area L waste oil storage tanks closure	October 1988	September 1989
AL-LA-RC-3 TA-3 waste oil storage pits	October 1988	September 1989
AL-LA-RC-4 TA-16 Area P landfill closure	October 1989	September 1991
AL-LA-RC-5 TA-40 scrap detonation site closure	October 1989	September 1990
AL-LA-RC-6 TA-45 Area L and H closure	October 1989	TBD
AL-LA-RC-7 TA-54 Area G closure	October 1989	TBD
AL-LA-RC-9 RCRA Waste Disposal Facility	October 1989	September 1995
AL-LA-1 Canyons	October 1994	TBD
AL-LA-2 TA-33 Material Disposal areas	October 1992	TBD
AL-LA-3 TA-33 Buildings and Outfalls	October 1993	TBD
AL-LA-4 TA-33, subsurface structures	October 1993	TBD

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Remediation
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-5 TA-50, Material Disposal Area C	October 1993	TBD
AL-LA-6 TA-35, 42, 48, 55	October 1993	TBD
AL-LA-7 TA-4, 5, 35, 52	October 1993	TBD
AL-LA-8-1 Material Disposal Area T, TA-21	October 1994	TBD
AL-LA-8-2 TA-21, Material Disposal Areas	October 1994	TBD
AL-LA-9 TA-21, subsurface structures	Octoaber 1993	TBD
AL-LA-10-1 TA-21, outfalls, spills	October 1993	TBD
AL-LA-10-2 TA-21, Incinerators, contaminated areas	October 1993	TBD
AL-LA-11 TA-1	October 1994	TBD
AL-LA-12 TA-11, 13, 16, 24, 25, outfalls, sumps, septic systems	October 1994	TBD
AL-LA-15 TA-10	October 1993	TBD

Albuquerque Operations Office
Environmental Restoration Program

Major Milestone Sheet
Remediation
Installation Los Alamos National Laboratory

Task No.	Milestone Completion Date Scheduled Start Date (Baseline)	Scheduled Finish Date (Baseline)
AL-LA-22 TA-15, firing points A, B, G and DARHT	October 1993	TBD
AL-LA-25 Townsite areas	October 1993	TBD
AL-LA-26 Townsite areas	October 1993	TBD
AL-LA-27 Townsite areas	October 1993	TBD
AL-LA-40 TA-32	October 1993	TBD
AL-LA-43 TA-26 (Task 44 deleted)	October 1993	TBD
AL-LA-45 TA-19	October 1993	TBD
AL-LA-49 TA-31	October 1993	TBD
AL-LA-51 Task 49, deep subsurface	October 1994	TBD
AL-LA-52 TA-49 surface structures	October 1994	TBD
AL-LA-53 TA-45	October 1993	TBD
AL-LA-57 Interim Remedial measures (RD/RA)	October 1989	TBD

[1]"A" indicates actual dates.
[2]All RCRA Closure Plan finish dates will be ultimately determined by state regulatory agency.

2.3.1.2.1

ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION

ACTIVITY DATA SHEETS

LOS ALAMOS NATIONAL LABORATORY

REMEDIATION

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

PREPARED/REVIEWED BY (SITE OFFICE):	ORGANIZATION:	DATE:
John M. Puckett	LANL	4/29/89
PREPARED/REVIEWED BY (AREA OFFICE):	**ORGANIZATION:**	**DATE:**
J. A. Thomas	DOE/LAAO	4-28-89
PREPARED/APPROVED BY (TASK GROUP LEADER):	**ORGANIZATION:**	**DATE:**
Michael Fehn	DOE/HQ	4/28/89
PREPARED/REVIEWED BY (AL TASK GROUP STUDY CHAIR):	**ORGANIZATION**	**DATE:**
Patrick J. Higgins Jr.	DOE/AL/OCAO	4/28/89

Sign-off Sheet Covers all ADS Sheets

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1048-01/ 06-30

7. ACTIVITY NO: 2.3.1.02.0007

8. ACTIVITY TITLE: Canyons (AL-LA-1) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u) and (v), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							250
Capital:							
Construction							
Equipment							
GPP							
Total							250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $64,370K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of remediation of the potential impacts to 15 major Los Alamos canyons. The canyon effort addresses the impact to the watershed and to the Rio Grande as well as the shallow alluvial aquifers in each canyon. Facilities on top of the mesas may impact the canyons from outfalls along the canyon rims. Some facilities and firing sites are located in the canyons. There are 16 potential release sites (mainly effluent receiving areas) with radioactive, beryllium, unexploded ordnance, heavy metals, and high explosive contaminants. Most contamination is expected to be very low level and, therefore, limited removal and institutional controls would be sufficient remediation. It is unlikely that soils and alluvium would be removed and disposed of offsite as mixed or hazardous wastes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates were made by assuming a fraction of each canyon was contaminated and that soil was removed up to two feet in depth.

18. PRIORITY RATIONALE:

Priority 2. LANL will have a RCRA permit November 1989 covering SWMUs in this task; however, remediation funding is not required until FY 1995.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1)the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PS/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1063-01/06-30
7. ACTIVITY NO: 2.3.1.02.0028
8. ACTIVITY TITLE: Interim Remedial Measures at Contaminated Sites and Underground Tanks (AL-LA-57) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		70	270	70	450	450	760
Capital:							
Construction							
Equipment							
GPP							
Total		70	270	70	450	450	760
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,070K

14. KEY WORDS: Interim Remedial Measures

15. ACTIVITY DESCRIPTION:

Currently, four potential release sites exist where contamination could be transported by erosion and runoff processes resulting in deterioration of conditions, especially at old waste disposal locations. These sites comprise an area of approximately 1.1 acres. In the past, similar remedial actions have been carried out by the interim waste management program addressing old radioactive waste disposal sites. There will be a continuing need for such actions at other sites. Several old underground tanks also require removal.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1989
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on need to conduct interim remedial measures.

18. PRIORITY RATIONALE:

Priority 2 because of regulatory requirements (see Number 11).

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence in costing is low.

20. ACCOMPLISHMENTS TO DATE:

None.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
OPER: GF-72-91-02
CE:
CONST:
5b. OLD B&R CODE:
OPER: GF-11
CE:
CONST:
6. IDENTIFICATION NO: AL-1067-01/06-30
7. ACTIVITY NO: 2.3.1.02.0003
8. ACTIVITY TITLE: RCRA Mixed Waste Disposal Facility (AL-LA-RC-9) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		660	3460	2200	2000	2340	1240
Capital:							
Construction							
Equipment							
GPP							
Total		660	3460	2200	2000	2340	1240
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,190K

14. KEY WORDS: RCRA Mixed Waste Disposal Facility

15. ACTIVITY DESCRIPTION:

Los Alamos intends to dispose RCRA waste generated during RCRA closures, RCRA corrective actions, interim remedial actions, and CERCLA remedial actions in an onsite RCRA-permitted facility. This facility will be phased in as needed depending on the waste volumes generated.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA waste disposal facility	October 1989
Complete RCRA waste disposal facility	September 1995

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

LANL will build a RCRA-permitted mixed waste disposal facility to dispose of mixed wastes because at least 95% of the waste will be generated from the ER Program.

18. PRIORITY RATIONALE:

Priority 3 based on the need to dispose of mixed waste generated by the ER Program. There are no mixed waste RCRA-permitted disposal facilities currently in New Mexico.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Cost estimates are based on preliminary conceptual designs. Waste types and volumes are largely unknown at this time. Level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Preliminary conceptual design study (working draft).

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

Send all RCRA waste to offsite disposal facilities.

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1074-01/06-30
7. ACTIVITY NO: 2.3.1.02.0029
8. ACTIVITY TITLE: TA-0, Townsite Areas, Firing Ranges, Contaminated Structures (AL-LA-25) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,890K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of buried gunmount (North Mesa), Tank Mesa disposal area, townsite firing range, airport incinerator buildings and canyon debris area, impact areas from Army ordnance, concrete covered pits, and contaminated structures. About 6 acres are associated with these structures and areas. Possible contaminants are uranium, heavy metals, unexploded ordnance, and organic chemicals. Potential remedial actions may range from selected removal of small volumes to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 because this site will be listed in the RCRA permit November 1989. Risks associated with these sites is expected to be very small.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently a non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1075-01/06-30
7. ACTIVITY NO: 2.3.1.02.0030
8. ACTIVITY TITLE: TA-0, Townsite Areas, Material Disposal Areas (AL-LA-26) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u) and (v), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $16,160K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of Mortandad Canyon Material Disposal Area and airport landfill and burning area. Townsite areas are mostly isolated sites now belonging to the private sector, Forest Service, or Los Alamos County. About 2.6 acres are associated with these areas. Possible contaminants are uranium, organic chemicals, and high explosives. Potential remedial actions range from selected removal followed by institutional controls to the less likely removal and disposal alternatives for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 because this activity will be listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1076-01/ 06-30

7. ACTIVITY NO: 2.3.1.02.0031

8. ACTIVITY TITLE: TA-0, Townsite Areas, Contaminated Structures (AL-LA-27) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u) and (v), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,020K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of sanitary sewer plants, airport bunkers, buildings, incinerator, waste lines and associated structures, and tank farm contaminated area. Townsite areas are mostly isolated sites now belonging the private sector, Forest Service, or Los Alamos County. Many structures are only known from early aerial surveys. About 8 acres associated with these structures and areas. Contaminants may be radionuclides, organic chemicals, and heavy metals. Possible remedial action includes selected removal of small volumes or less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and require a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 because this site will be listed in the RCRA permit.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1077-01/06-30
7. ACTIVITY NO: 2.3.1.02.0019
8. ACTIVITY TITLE: TA-1, Contaminated Areas, Structures—Townsite (AL-LA-11) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u) and (v), and NMHWMR
12. FUNDING SUMMARY: BUDGET AUTHORITY (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							250
Capital:							
Construction							
Equipment							
GPP							
Total							250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $84,260K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of potential surface and subsurface contaminated areas which include hillside surface contamination, disposal areas, acid sewer lines, manholes, septic tanks, storm drains, and outfalls. TA-1 was the original uranium and plutonium processing area where the first atomic weapons were fabricated during WWII at the current Los Alamos Townsite. Most of the structures have been removed and extensive decommissioning and decontamination has been done throughout the sites. Some underground structures and contaminated soil may remain in the townsite, even after extensive and thorough decommissioning and decontamination efforts were done. About 80 acres (owned by DOE, LA County, and private owners) may still contain residual plutonium, uranium fission product, and organic chemical contamination. Remediation is expected to be selected removal of small volumes followed by institutional controls and, less likely, removal and disposal of small volumes associated with deep underground structures.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1994
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are primarily based on a preliminary review of the 1974-76 D&D for TA-1 which is a revisit of some of the sites to look for nonradioactive contaminants and to verify radioactive contaminant levels. See Number 15 above.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above) and 1974-76 data from D&D where levels of radioactive contamination left in place deep subsurface pose very small risk to public.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites thay may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1080-01/06-30
7. ACTIVITY NO: 2.3.1.02.0037
8. ACTIVITY TITLE: TA-10, Firing Sites, Structures—Townsite (AL-LA-15) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $20,520K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of firing sites, detonation sites, tanks, disposal pit, landfill, and decommissioned building areas. TA-10 contained a series of firing sites, radiochem lab, and fission product burial sites. It has been decontaminated and decommissioned and transferred to Los Alamos County with restricted use agreements. TA-10 is located in Bayo Canyon. Potential contaminants in an area of about 5 acres include uranium, strontium-90, high explosives, acids, heavy metals, beryllium, and organic chemicals. Possible remediation ranges from limited removal followed by institutional controls to the less likely case of removal and disposal for the disposal pits.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based partially on FUSRAP D&D data and assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 because this site will be listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1081-01/06-30

7. ACTIVITY NO: 2.3.1.02.0020

8. ACTIVITY TITLE: TA-11, 13, 16, 24, 25, Outfalls, Sumps, Septic System (AL-LA-12) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,540K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with outfalls, sumps, sump pits, septic tanks, drain lines, and waste tanks. TA-11 was originally used for weapon mockup testing at various firing sites and now is used for high explosives drop tests. TA-13 was originally used for X-ray work with explosive testing and is currently part of TA-16. TA-16 produces, tests, and assembles high explosive components for weapons R&D. TA-24 (T-site) was originally a service area for X-ray examination of high explosives and for high explosive storage; it is now nonoperational and part of TA-16. TA-25 (V-site) was also a high explosive process area and is now nonoperational and part of TA-16. Potential contaminants at these TAs are high explosives, organic chemicals, and heavy metals. Most sites are expected to require selected removal of small volumes with removal and disposal of large volumes less likely. The remaining potentially contaminated structures cover about one acre and are expected to be remediated using selected removal followed by institutional controls with removal and disposal of large volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). Los Alamos will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1087-01/06-30
7. ACTIVITY NO: 2.3.1.02.0025
8. ACTIVITY TITLE: TA-15, Firing Points A, B, G, and DARHT (AL-LA-22) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						3800	3800
Capital:							
Construction							
Equipment							
GPP							
Total						3800	3800
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $25,850K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of firing sites A, B, and G; firing site disposal areas; active sumps, drains, outfalls, and septic tanks; and decommissioned building areas. TA-15 (R-Site) is a series of firing sites for hydrodynamic studies. Two main X-ray machine firing sites, PHERMEX and ECTOR, and soon a third (Linear accelerator), DARHT, are used by the operating groups. About 68 acres contain the active and inactive firing sites and associated structures. Possible contaminants include uranium, beryllium, heavy metals, and high explosives. Possible remedial actions include selected removal followed by institutional controls and removal and disposal of larger volumes less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11). This site will be listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site;
(3) DAHRT reconnaissance plan completed; and
(4) DAHRT reconnaissance sampling completed.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1090-01/ 06-30
7. ACTIVITY NO: 2.3.1.02.0001
8. ACTIVITY TITLE: TA-16, Area P Landfill Closure (AL-LA-RC-4) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		1430	1590				
Capital:							
Construction							
Equipment							
GPP							
Total		1430	1590				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,020K

14. KEY WORDS: RCRA Closure

15. ACTIVITY DESCRIPTION:

TA-16 Area P Landfill, which was used to dispose of residues from burning high-explosive contaminated equipment and trash, is to be closed. A closure plan has been submitted to the New Mexico Environmental Improvement Division (NMEID). Anticipated closure will entail stabilization and capping of the "active" portion; run-on control; leachate collection; and ground water, surface water, and subsurface moisture monitoring. It is possible that extensive deep ground water monitoring and vadose zone monitoring could be required. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1989
Finish RCRA Closure	September 1991

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Close in place under RCRA regulations.

18. PRIORITY RATIONALE:

Priority 2 based on regulations. LANL will have a RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Closure plan not approved by NMEID. Cost estimates are only based on conceptual designs, and level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Closure plan submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1091-01/06-30
7. ACTIVITY NO: 2.3.1.02.0027
8. ACTIVITY TITLE: TA-16, Burning Ground Surface Impoundment Closure (AL-LA-RC-1) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	100						
Capital:							
Construction							
Equipment							
GPP							
Total	100						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $100K

14. KEY WORDS: RCRA Closure

15. ACTIVITY DESCRIPTION:

TA-16 Burning Ground Impoundment, which received effluent from sand filters used to separate and burn sludge from high explosive processing wastes, is to be closed. A closure plan was submitted to the New Mexico Environmental Improvement Division (NMEID) in 1987. The plan is to decontaminate and remove the liner and remove contaminated soil, if any, found beneath the impoundment. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA closure	October 1988
Finish RCRA closure	September 1989

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Clean closure (no contamination/fill in hole). Removal costs were estimated on a cubic yard basis.

18. PRIORITY RATIONALE:

Priority 1. This is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Closure plans have not yet been approved by State of New Mexico. Therefore, cost estimates are only based on conceptual designs and level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Closure plan submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1097-01/06-30
7. ACTIVITY NO: 02.3.1.02.0034
8. ACTIVITY TITLE: TA-19, Contaminated Structures (AL-LA-45) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						120	200
Capital:							
Construction							
Equipment							
GPP							
Total						120	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $320K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of two potential release sites comprising approximately 1.5 acres. The sites include a septic tank and building debris. TA-19 (East Gate Laboratory) consisted of a laboratory storage hutment where spontaneous fission experiments were conducted. Only a septic tank remains at the decommissioned site. Possible contaminants include radionuclides, solvents, and hazardous chemicals. Possible remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering these SWMU's in this task.

19. LEVEL OF CONFIDENCE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information become available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1101-01/06-30

7. ACTIVITY NO: 2.3.1.02.0017

8. ACTIVITY TITLE: TA-21, Outfalls, Buildings, and Spills (AL-LA-10-1) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $13,070K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with outfalls, spills, and contaminated areas. TA-21 was partially decommissioned and decontaminated in 1977-1980. About 88 acres are associated with old decontaminated spills and outfalls surrounding the TA-21 area. Remediation of these potential release sites for radionuclides and organic chemicals ranges from selected removal of small volumes to the less likely removal and disposal of structures and associated larger contaminated volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Complete RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/ or areas is contaminated, removing a portion of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 3 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) reconnaissance sampling completed on some outfalls—raw data report, Task AL-LA-10-1, TA-21 Outfalls, February 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1102-01/06-30
7. ACTIVITY NO: 2.3.1.02.0014
8. ACTIVITY TITLE: TA-21, Material Disposal Area T (AL-LA-8-1) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							250
Capital:							
Construction							
Equipment							
GPP							
Total							250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $38,440K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with Material Disposal Area T and TA-21. Area T contained four absorption gravel beds for untreated liquid plutonium and americium waste disposal in the early 1950s. Plutonium and americium have been found below the beds to about the 90-ft depth. Limited removal followed by capping the site (1 acre) is the expected remediation with removal and disposal less likely due to the long (greater than 500 ft) distance to the deep aquifer below the site. Possible contaminants include plutonium, americium, acids, ammonium citrate, and fluoride.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on exhuming the source term followed by capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). Area T is not currently listed as an SWMU; however, it is anticipated that it will become an SWMU based on environmental analysis and will be remediated under RCRA.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently a non-NPL site; and
(3) hydrogeological assessments of Area T previous two boreholes (1977-1979) are complete.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1103-01/06-30
7. ACTIVITY NO: 2.3.1.02.0015
8. ACTIVITY TITLE: TA-21, Material Disposal Areas A, B, U, and V (AL-LA-8-2) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							250
Capital:							
Construction							
Equipment							
GPP							
Total							250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $96,810K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with Material Disposal Areas A, B, U, and V; landfills; and surface disposal areas. TA-21 was the plutonium processing, recovery, and fabrication facility at Los Alamos until 1978 when operations were transferred to TA-55. The Material Disposal Areas at TA-21 contain debris, TRU-mixed waste, and plutonium processing equipment from the 1940s to the mid-1970s. The Material Disposal Areas cover about 12 acres with remediation likely to be limited removal followed by capping because of the great distance (>500 ft) to the deep aquifer. Removal and disposal is less likely. Possible contaminants include plutonium, americium, fission products, uranium, organic chemicals, and heavy metals.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on partial exhumation of the source term at each Material Disposal Area. Old waste volume and waste type records are incomplete and constituents as well as locations poorly known.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). This activity will be listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently a non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1104-01/06-30
7. ACTIVITY NO: 2.3.1.02.0018
8. ACTIVITY TITLE: TA-21, Outfalls, Buildings, and Spills (AL-LA-10-2) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,130K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with contaminated incinerators, buildings, and structures. TA-21 was partially decommissioned and decontaminated (D&D) in 1977-1980. Most of the contaminated buildings, exterior duct work, and underground structures still remain at TA-21. The D&D removed the equipment and utilities to the bare walls. Small areas (.2 acre) associated with the buildings may require remediation of radionuclide and organic chemical contamination ranging from selected removal followed by institutional controls to the less likely removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Complete RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1105-01/06-30
7. ACTIVITY NO: 2.3.1.02.0016
8. ACTIVITY TITLE: TA-21, Subsurface Structures (AL-LA-9) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $7,120K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with storage tanks, seepage pits, drain lines, septic tanks, sumps, pits, and manholes. TA-21 was partially D&D in 1977-1980. Most of the contaminated buildings, exterior duct work, and underground structures remain at TA-21. About 5 acres are associated with these structures with potential contaminants being acids, organic chemicals, uranium, americium, and plutonium. Remediation is expected to consist of partial removal followed by institutional controls, with removal and disposal possible in small subsurface areas near the industrial waste lines.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/ or volumes is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). Los Alamos will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently a non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1113-01/06-30
7. ACTIVITY NO: 2.3.1.02.0033
8. ACTIVITY TITLE: TA-26, Contaminated Areas (AL-LA-43) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,330K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites comprising approximately 1.5 acres. The sites include a canyon site disposal area, outfall areas, and septic tank south of vault area. TA-26 (D-Site) at East Gate consisted of a concrete storage vault, security buildings, and gun towers. These buildings were demolished in 1965 or 1966. Potential contaminants include tritium and other radionuclides. Possible remedial alternatives vary from selected removal followed by institutional controls to the less likely alternative of removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and removing a fraction of this volume followed by capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering these SWMU's in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1118-01/06-30
7. ACTIVITY NO: 2.3.1.02.0035
8. ACTIVITY TITLE: TA-31 Contaminated Areas (AL-LA-49) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

	FISCAL YEARS						
	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						150	200
Capital:							
Construction							
Equipment							
GPP							
Total						150	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $350K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site, which is approximately 1 acre in size. The site is a contaminated area associated with buildings. TA-31 (East Receiving Yard) had six warehouses, a receiving dock, and drum storage area. These structures were removed in 1954 and most of the land subsequently became a private housing area (Eastern Area near Los Alamos airport). An abandoned septic tank remains on a portion of the land owned by Los Alamos County. Potential contaminants include chemical and petroleum products. Possible remedial alternatives vary from selected removal of small volumes to the less likely alternative of removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on selected removal and/or disposal.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). Residual potential contamination poses very small risk to public; however, public access to area is extensive. This activity will be listed in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) Los Alamos currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $490K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of three potential release sites which comprise approximately 7 acres. The sites include an old lab area, septic tanks and associated structures, and an incinerator. TA-32 was the medical research lab facility before 1953. The facility consisted of labs, offices, and an incinerator. TA-32 was removed as part of routine operations, and no records are available on the decommissioning and decontamination of this facility. Potential contaminants include radionuclides and hazardous wastes. Potential remedial alternatives for these sites vary from selected removal followed by institutional controls to the less likely removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on assuming a portion of the structures and/or areas is contaminated and will require removal and disposal.

18. PRIORITY RATIONALE:

Priority 2. LANL will have a RCRA permit November 1989 covering SWMU's in this task. Based on limited data there is no known risk to the public.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI submitted to EPA Region IV, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/ or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2. LANL will have a RCRA permit November 1989 covering SWMUs in this task. However, remediation funds are not required in FY 1991.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1123-01/ 06-30
7. ACTIVITY NO: 2.3.1.02.0008
8. ACTIVITY TITLE: TA-33, Material Disposal Areas (AL-LA-2) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating					2000	2000	490
Capital:							
Construction							
Equipment							
GPP							
Total					2000	2000	490
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $4,990K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with Material Disposal Areas D, E, and K, and burning pit covering about 10 acres. The materials in D and E are debris from gun firing and tower/firing site areas at TA-33, where munitions and weapons components were tested. TA-33 has an operating tritium-handling facility, which discharges effluents into an area called Material Disposal Area K. Remedial actions for D & E are expected to be possibly limited removal followed by institutional controls because of the low hazard potential of buried depleted uranium and small amounts of beryllium contamination. Area K is expected to contain a subsurface tritium plume (which would decay quickly [T1/2=12 yrs]) and possibly acids and organic chemicals requiring only institutional controls with limited removal and disposal after the tritium facility is decommissioned in FY 1989.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1992
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

The RD/RA costs are based solely on engineering assumptions (see Number 15)

18. PRIORITY RATIONALE:

Priority 2. LANL will have a RCRA permit November 1989 covering SWMUs in this task. However, remediation funding is not required in FY 1991.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude as a result of increased (or decreased) levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PS/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site;
(3) reconnaissance sampling plan completed for Task 2, Material Disposal Areas; and
(4) reconnaissance sampling scheduled for summer, FY 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1124-01/06-30
7. ACTIVITY NO: 2.3.1.02.0010
8. ACTIVITY TITLE: TA-33, Subsurface Structures (AL-LA-4) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,150K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with waste tanks, septic tanks, drain lines, and trenches. These underground structures are associated with TA-33 gun firing and tower/firing site areas where munitions and weapons components were tested. About 2 acres containing underground structures may be associated with these firing sites. The potential contaminants are organic chemicals, mercury, beryllium, tritium, and depleted uranium. Remedial actions will probably consist of limited removal followed by leaving these structures in place in most cases because of their low contamination levels. Removal and disposal is unlikely due to the expected low concentration and hazard potential of the contaminants.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/ or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit covering SWMUs in the task November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1127-01/06-30
7. ACTIVITY NO: 2.3.1.02.0005
8. ACTIVITY TITLE: TA-35, Waste Oil Storage Pit Closure (AL-LA-RC-3) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	100						
Capital:							
Construction							
Equipment							
GPP							
Total	100						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $100K

14. KEY WORDS: RCRA Closure

15. ACTIVITY DESCRIPTION:

Two surface impoundments at TA-35 used to collect spilled or leaked oil from associated buildings are to be closed. Closure plans were submitted to New Mexico Environmental Improvement Division (NMEID) in FY 1989. Closure is expected to remove contaminated liquid, residues, and contaminated soil. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1988
Finish RCRA Closure	September 1989

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Clean closure (remove and dispose of at offsite permitted facility). Removal costs estimated on cubic yard basis.

18. PRIORITY RATIONALE:

Priority 1. Closure is part of RCRA permit. This is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Closure plan not approved by State of New Mexico. Cost estimates are only based on conceptual designs, and level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Closure plan submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1128-01/06-30
7. ACTIVITY NO: 2.3.1.02.0012
8. ACTIVITY TITLE: TA-35, 42, 48, 55 (AL-LA-6) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						200	200
Capital:							
Construction							
Equipment							
GPP							
Total						200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $11,210K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with contaminated areas, debris area, storage tanks, storm drains, outfalls, underground structures, drum storage, and septic tanks. TA-35 had many early sites where tritium and strontium-90 were processed. Several small experimental nuclear reactors were also developed and tested at TA-35. TA-42 was an incinerator for contaminated solid waste (now decommissioned and removed). TA-55 is the current plutonium production and fabrication facility for LANL. TA-48 processes medical and NTS radioisotopes. These areas contain about 11 acres of potential surface and subsurface release sites with a variety of contaminants including mercury, plutonium, fission products, and organic chemicals. Remediation is expected to consist of limited removal followed by institutional controls.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/ or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering these SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1133-01/ 06-30

7. ACTIVITY NO: 2.3.1.02.0013

8. ACTIVITY TITLE: TA-4, 5, 35, 52 (AL-LA-7) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $18,620K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with firing pits, firing sites, decommissioned buildings, outfalls, oil spills, septic tanks, petroleum and waste storage tanks, waste oil lagoons, and an abandoned reactor building. TA-4 and 5 were used as firing sites in the 1940s. At TA-35 numerous outfalls to the canyons are visible from the current (laser fusion) and earlier operations. The fusion work requires large volumes of oil which have occasionally overflowed into the canyons. TA-52 was an experimental nuclear reactor that only operated a few months, so the fission product inventory was very low with little residual contamination. TA-52 will be decontaminated before the RI/FS is completed. At TA-4 and 5 abandoned firing sites cover about 20 acres with potential contaminants including depleted uranium, beryllium, high explosives, and heavy metals. Remediation is expected to consist of possibly limited removal followed by institutional controls. The remaining surface and subsurface structures and outfalls at TA-35 and TA-52 have potential contaminants including fission products, organic chemicals, and PCBs. Remediation could consist of possibly limited removal followed by institutional controls.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structures and/or areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering SWMWs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST: 39-
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST: 39-
6. IDENTIFICATION NO: AL-1135-01/06-30
7. ACTIVITY NO: 2.3.1.02.0006
8. ACTIVITY TITLE: TA-40, Scrap Detonation Site Closure (AL-LA-RC-5) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		210					
Capital:							
Construction							
Equipment							
GPP							
Total		210					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $210K

14. KEY WORDS: RCRA Closure

15. ACTIVITY DESCRIPTION:

TA-40 Scrap Detonation Site, an inactive site used to detonate scrap high explosives, is to be closed. A closure plan was submitted to the New Mexico Environmental Improvement Division (NMEID) in September 1985. The plan anticipates determining the extent of soil contamination, or lack thereof, by sampling the site itself as well as the canyon below the site. Contaminated soil, if any is found, may need to be removed and treated or disposed of as hazardous waste. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1989
Finish RCRA Closure	September 1990

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Clean closure with disposal at a RCRA-permitted facility. Removal costs estimated on a cubic yard basis.

18. PRIORITY RATIONALE:

Priority 2. Closure is part of RCRA Permit.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The Closure Plan has not yet been approved by NMEID. Cost estimates are only based on conceptual designs, and level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Closure plan submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1139-01/06-30
7. ACTIVITY NO: 2.3.1.02.0036
8. ACTIVITY TITLE: TA-45, Industrial Liquid Waste Treatment Plant, Townsite (AL-LA-53) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(v), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						200	200
Capital:							
Construction							
Equipment							
GPP							
Total						200	200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,020K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an approximate size of 5 acres. The site resulted from the former industrial liquid waste treatment plant effluent released to Acid Canyon. TA-45 received industrial and radioactive liquid wastes from TA-1. (Main Technical Area during WWII.) Until 1951 raw waste was discharged into Acid Canyon. By 1951 the TA-45 waste treatment plant was operating and most of the contaminates were removed before discharge. The plant was decontaminated and decommissioned in 1966. Extensive sampling and surveillance was done under the FUSRAP program. Possible remedial alternatives vary from selected removal for small volumes to removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start of RCA and CERCLA RD/RA	October 1993
Finish of RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimate based on past D&D data for radiological contaminants as being indicative of chemical contamination.

18. PRIORITY RATIONALE:

Priority 2 based on regulatory requirements (see Number 11 above). This activity will be included in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is low.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document sent to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) townsite tasks being reviewed internally on high priority.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1143-01/06-30
7. ACTIVITY NO: 2.3.1.02.0023
8. ACTIVITY TITLE: TA-49, Deep Subsurface, Contamination From Shots (AL-LA-51) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							200
Capital:							
Construction							
Equipment							
GPP							
Total							200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $64,450K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of one potential release site with an approximate size of 3 acres and consists of Material Disposal Area AB. At TA-49 underground hydronuclear experiments were conducted in 1960-61. The experiments involved high explosives, plutonium, beryllium, and lead in nuclear weapon configurations to test weapon safety. To support the experiments a small radiochemistry facility was also built at the site. Most above-ground structures have been removed and the surface decommissioned and decontaminated. Potential remedial alternatives for these mixed wastes vary from selected removal followed by capping to removal and disposal of larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming no migration of the deeply buried contamination to the deep aquifer (approx. 1,000 ft. below the waste). The contamination is assumed to be left in place and capped to prevent water entry and keep migration to zero.

18. PRIORITY RATIONALE:

Priority 2 because this site will be included in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is low.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987;
(2) LANL currently non-NPL site; and
(3) risk assessments are currently being calculated using existing hydrological data.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-91-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1146-01/ 06-30
7. ACTIVITY NO: 2.3.1.02.0011
8. ACTIVITY TITLE: TA-50, Material Disposal Area C (AL-LA-5) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating						250	250
Capital:							
Construction							
Equipment							
GPP							
Total						250	250
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $57,040K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task consists of TA-50 and Material Disposal Area C. TA-50 is the radioactive and industrial liquid waste treatment facility. Contaminated liquid is treated, contaminants precipitated, and solids drummed for disposal at TA-54. The treated effluent is released into Mortandad Canyon. The surface and subsurface structures near TA-50 encompass about 31 acres. Remediation ranges among no action, capping, and removal/disposal depending on the levels of uranium, plutonium, fission products, heavy metals, and organic chemicals found during RI/FS. Area C is about 10 acres and contains TRU-mixed wastes in shafts, pits, and trenches. Remediation of Area C could be capping or possibly removal and disposal, though the latter is less likely.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1993
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates for TA-50 structures and for Area C are based on assuming a portion of the structures and/or areas is contaminated, removing a fraction of the volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). LANL will have a RCRA permit November 1989 covering SWMUs in this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1150-01/06-30
7. ACTIVITY NO: 2.3.1.02.0004
8. ACTIVITY TITLE: TA-54, Area L Waste Oil Storage Tanks (AL-LA-RC-2) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	100						
Capital:							
Construction							
Equipment							
GPP							
Total	100						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $100K

14. KEY WORDS: RCRA Closure

15. ACTIVITY DESCRIPTION:

Six tanks used to store waste oil contaminated with metals and possibly PCBs, and the contaminated soil around the tanks are to be closed. A closure plan was submitted to the New Mexico Environmental Improvement Division (NMEID) in 1988. Planned closure is to decontaminate tanks and remove any contaminated soil around tanks. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1988
Finish RCRA Closure	September 1989

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Clean closure (remove and dispose of at offsite permitted facility). Removal costs estimated on cubic yard basis.

18. PRIORITY RATIONALE:

Priority 1. Closure is part of RCRA permit. This is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Closure plan has not yet been approved by NMEID. Cost estimates are only based on conceptual designs, and level of confidence is low.

20. ACCOMPLISHMENTS TO DATE:

Closure plan submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-89-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1151-01/ 06-30
7. ACTIVITY NO: 2.3.1.02.0026

8. ACTIVITY TITLE: TA-54, Area G Closure (AL-LA-RC-7) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		50	790	4540	5810	5740	6540
Capital:							
Construction							
Equipment							
GPP							
Total		50	790	4540	5810	5740	6540
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $112,790K

14. KEY WORDS: RCRA Closures

15. ACTIVITY DESCRIPTION:

TA-54 Area G has been the active LANL landfill site for low-level radioactive wastes since 1957. The more than 60 acre site includes numerous pits and shafts of varying dimensions. Some of the units are known to contain materials now considered mixed wastes. A closure plan for limited portions of Area G was submitted to the New Mexico Environmental Improvement Division (NMEID) in 1985. It is anticipated that the existing plan will have to be revised to include all regulated portions of Area G once NMEID assumes mixed waste authority. Developing and implementing the closure will include extensive study of potential contaminant movement in the vadose zone. Existence of contamination may lead to requirement for extensive vadose zone and ground water monitoring. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1989
Complete RCRA Closure	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Close in place according to RCRA regulations.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). This activity will be included in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude. Cost estimates and schedules will be updated on a task-specific basis as additional information becomes available during the field investigation process and closure is negotiated.

20. ACCOMPLISHMENTS TO DATE:

Closure plans have been submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:
5a. PROGRAM B&R CODE:
   OPER: GF-72-89-02
   CE:
   CONST:
5b. OLD B&R CODE:
   OPER: GF-11
   CE:
   CONST:
6. IDENTIFICATION NO: AL-1152-01/06-30
7. ACTIVITY NO: 2.3.1.02.0002
8. ACTIVITY TITLE: TA-54, Area L and H Closure (AL-LA-RC-6) Remediation
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 2
11. APPLICABLE REQUIREMENTS: RCRA Subtitle C and NMHWMR
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		660	3310	3560	4170	4520	2830
Capital:							
Construction							
Equipment							
GPP							
Total		660	3310	3560	4170	4520	2830
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $49,690K

14. KEY WORDS: RCRA Closures

15. ACTIVITY DESCRIPTION:

TA-54 Area L, including inactive disposal shafts, surface impoundments, and storage facilities; and Area H, including inactive disposal shafts, are to be closed. A closure plan involving capping has been submitted to the New Mexico Environmental Improvement Division (NMEID). It is possible that removal of some wastes could be required. Existing organic vapor contamination is being investigated; additional study will be needed to determine if any treatment may be required. Contamination may lead to the need for extensive vadose zone and ground water monitoring. Implementing closure is dependent on approval by NMEID.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCRA Closure	October 1989
Complete RCRA Closure	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Close in place according to RCRA regulations.

18. PRIORITY RATIONALE:

Priority 2 based on regulations (see Number 11 above). This activity will be included in the RCRA permit November 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedules is very low because standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than one order of magnitude. Cost estimates and schedules will be updated on a task-specific basis as additional information becomes available during the field investigation process and closure is negotiated.

20. ACCOMPLISHMENTS TO DATE:

Closure plans have been submitted to NMEID. LANL has not kept prior costs on this project.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING:

5a. PROGRAM B&R CODE:

OPER: GF-72-91-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11

CE:

CONST:

6. IDENTIFICATION NO: AL-1137-01/06-30
7. ACTIVITY NO: 2.3.1.02.0024

8. ACTIVITY TITLE: TA-49, Surface Structures (AL-LA-52) Remediation

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 2

11. APPLICABLE REQUIREMENTS: CERCLA/SARA, RCRA 3004(u), and NMHWMR

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							200
Capital:							
Construction							
Equipment							
GPP							
Total							200
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $5,710K

14. KEY WORDS: CERCLA RD/RA and RCRA CA

15. ACTIVITY DESCRIPTION:

This task deals with five potential release sites that compose an area of approximately 4 acres. The sites include a leach field, surface radioactive contamination at Areas 12 and 5, a landfill/trash burning area, and surface contamination associated with Material Disposal Area AB. At TA-49 underground hydronuclear experiments were conducted in 1960-61. The experiments involved high explosives, plutonium, beryllium, and lead in nuclear weapon configurations to test weapon safety. To support the experiments a small radiochemistry facility was also built at the site. Most above-ground structures have been removed and the surface decommissioned and decontaminated. Possible remedial alternatives vary from selected removal of low-level surface contaminants followed by institutional controls to removal and disposal for larger volumes.

16. MILESTONE SCHEDULE (by fiscal year):

Start RCA and CERCLA RD/RA	October 1994
Finish RCA and CERCLA RD/RA	TBD

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on assuming a portion of the structure/areas is contaminated, removing a fraction of this volume, and capping.

18. PRIORITY RATIONALE:

Priority 2 because this task is included in the RCRA permit.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence in the task budgets/schedule is very low because (1) the task consists of multiple potential sites that may or may not exist and (2) standard unit cost factors are used rather than site-specific cost estimates. Cost estimates could be off by more than 1 order of magnitude as a result of increased or decreased levels of contamination. Cost estimates and schedules will be updated on a task/site-specific basis as additional information becomes available during the field investigation process.

20. ACCOMPLISHMENTS TO DATE:

(1) PA/SI document submitted to EPA Region VI, October 1987; and
(2) LANL currently non-NPL site.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 3
Environmental Restoration

Decontamination and Decommissioning Los Alamos National Laboratory

Predecisional Draft, Rev. 1

2.4.1.1 Decontamination and Decommissioning--Los Alamos National Laboratory

Objectives, Goals, and Strategy

The D&D at LANL meets the DOE goal of providing decontaminated space for reuse by future programs and minimizing surveillance and maintenance costs.

LANL began an active D&D program in 1973 to eliminate potential environmental releases of radioactive contaminants. Currently, funding is being provided by SFMP NE to decontaminate and decommission three reactors at LANL. These reactors are scheduled for D&D completion by the end of FY 1990. D&D for the Wing 9 hot cell is scheduled to begin in FY 1995. FY 1990 funding for removal of fuel from the Wing 9 hot cell is provided by the NE user program (NE-40) and the SFMP.

In addition, a facility at LANL has been identified for D&D as a part of the "non-orphan" survey. This facility is planned for surveillance and maintenance during FY 1991. LANL has identified funding for D&D of this facility in FY 1992 and FY 1993 although this does not coincide with the long-range planning input from RL. DFDP planning for D&D of this facility will be coordinated during FY 1989 and FY 1990, and the appropriate budget request will be included with the FY 1992 budget call.

Several facilities are identified as "funding not yet requested." The requirements for D&D of these facilities will be evaluated before the submittal of budget requests.

A Ten-Year Site Plan was prepared by LANL in 1977 to include all excess contaminated facilities. Funding was obtained from DOE Division of Environmental Technology for some of the facilities.

Other facilities were funded by including D&D costs as part of each new facility construction project. Since 1973, ten facilities or areas have been decontaminated, decommissioned, or entombed.

Site Specific Definitions and Assumptions

Release Criteria

D&D projects will meet release criteria requirements in effect at the time the operation takes place. However, guidelines such as the computer code being used by SFMP will require site specific interpretation primarily because of the wide variation of climatic conditions at Los Alamos. Concurrence with DOE will be obtained before performing the operation. The release criteria guidelines to be used in the UHTREX project are as follows.

Surface Contamination

The predominant radionuclide in the UHTREX project is CS-137, which would have an allowable total surface contamination of 5,000 dpm/100cm^2

(fixed, average), 15,000 dpm/100cm^2 (fixed, maximum), and 1,000 dpm/100cm^2 (removable).

Soil Contamination

Based on LANL calculations, CS-137 activity in soil would be limited to 60 pci/g in the surface layer (first 15 cm). The surface guideline will be 600 pci/g, which is consistent with the 980 pci/g used by the Laboratory in earlier decommissioning projects.

Future Use

Reuse of materials, equipment, and the facility or site itself are early considerations in the D&D program. High-value equipment items can be decontaminated by the Laboratory's decontamination personnel for reuse. Decontamination efforts required for facilities will be determined by considering the future operations.

Waste Types

Early estimates of waste volumes and types are prepared for each project to preclude major cost omissions and to establish a baseline for waste minimization activities. A planned onsite RCRA-permitted storage facility will facilitate compliance with all types of wastes.

Work Force

To date, all D&D radiation work has been planned and managed by Laboratory staff and performed by the onsite maintenance subcontractor. This practice will continue as long as the subcontractor can handle the work load; experienced radiation workers are available on short notice.

Major Driving Factors

Immediate Risks

There are no immediate risks from contaminated facilities at LANL.

Current Status

Compliance Efforts (Permits, Etc.)

Permitting efforts have not begun for the work planned for this time period, but no major problems are anticipated.

Major Constraints and Uncertainties

The major uncertainty is that efforts planned for FY 1989 and FY 1990, the decommissioning of three surplus reactors, may not be completed as planned. This would require some additional effort in FY 1991.

Major Problems and Resolution Efforts

None.

Summary

Schedule

See attached table.

Priorities

Surveillance and maintenance activities have been prioritized as Level 1. All other D&D activities have been prioritized as Level 3.

Funding

See attached table.

Schedule

The D&D schedule for FY 1989-91 is listed in one of the following tables.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: ENVIRONMENTAL RESTORATION
ACTIVITY TYPE: DECONTAMINATION & DECOMMISSIONING

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
241020006	1052	CMR WING 9 DECOMMISSIONING	ER	DD	1	AH102092	AH1020	9700	0	600	0	0	0	0	1300
241020005	1051	CMR WING 9 DECOMMISSIONING	ER	DD	1	AF80	AF8010	3878	977	983	0	0	0	0	0
241020009	1056	UHTREX REACTOR DECOMMISSIONING	ER	DD	1	AH102092	AH1020	2966	1200	1100	0	0	0	0	0
241020008	1057	WATER BOILER REACTOR DECOMMISSIONING	ER	DD	1	AH102092	AH1020	500	500	0	0	0	0	0	0
241020002	1050	CMR WING 9 DECOMMISSIONING	ER	DD	1	AH102092	AH1020	360	0	0	90	90	90	90	0
241020007A	1053	LAPRE REACTOR DECOMMISSIONING	ER	DD	1	AH102092	AH1020	75	75	0	0	0	0	0	0
241020001	1070	TA-21 BLDG 3 & 4 SOUTH SURVEILLANCE & MAINTENANCE	ER	DD	1	GF729201	GF11	20	0	0	20	0	0	0	0
* Subsubtotal *								17499	2752	2683	110	90	90	90	1300
* PRIORITY: 3															
241020003	1055	TA-21 BLDG 3 & 4 SOUTH DECOMMISSIONING	ER	DD	3	GF729202	GF11	3000	0	0	0	1500	1500	0	0
241020004	1054	PHASE SEPARATOR PIT DECOMMISSIONING	ER	DD	3	AH102092	AH1020	2000	0	0	0	0	2000	0	0
* Subsubtotal *								5000	0	0	0	1500	3500	0	0
* PRIORITY: 4															
241020007B	1367	LAPRE REACTOR DECOMMISSIONING	ER	DD	4	AH1020922	AH1020	200	0	200	0	0	0	0	0
* Subsubtotal *								200	0	200	0	0	0	0	0
** Subtotal **								22699	2752	2883	110	1590	3590	90	1300

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

1630

2.4.1.1.1

ALBUQUERQUE OPERATIONS OFFICE

ENVIRONMENTAL RESTORATION

ACTIVITY DATA SHEETS

LOS ALAMOS NATIONAL LABORATORY

DECONTAMINATION AND DECOMMISSIONING

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

PREPARED/REVIEWED BY (SITE OFFICE):	ORGANIZATION:	DATE:
John M. Puckett	LANL	[illegible]
PREPARED/REVIEWED BY (AREA OFFICE):	**ORGANIZATION:**	**DATE:**
J. A. Ruemmler	DOE/LAAO	4-28-89
PREPARED/APPROVED BY (TASK GROUP LEADER):	**ORGANIZATION:**	**DATE:**
[illegible]	DOE/AL	4/28/89
PREPARED/REVIEWED BY (AL TASK GROUP STUDY CHAIR):	**ORGANIZATION**	**DATE:**
Patrick J. Higgins Jr.	DOE/AL/OCRO	4/28/89

Sign-off Sheet Covers all ADS Sheets

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-3, SM29

5a. PROGRAM B&R CODE:

OPER: AH-10-2092

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20-92

CE:

CONST:

6. IDENTIFICATION NO: AL-1050-01/06-30
7. ACTIVITY NO: 2.4.1.02.0002
8. ACTIVITY TITLE: CMR Wing 9 Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: DOE Order 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			90*	90*	90*	90*	
Capital:							
Construction							
Equipment							
GPP							
Total			90	90	90	90	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

*FY 1991 thru 1994 is surveillance and maintenance funding.

Status: SFMP-funded
Document Source: LANL WM Site Plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $360K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Removal of highly contaminated alpha containment boxes and decontamination of building for reuse.

16. MILESTONE SCHEDULE (by fiscal year):

Removal of Containment Boxes	FY 1990
Maintenance and Surveillance	FY 1991-1994
Decontamination of Facility	FY 1995-1998

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Estimate is based on historical surveillance and maintenance costs at Los Alamos for such items as utilities, security, and radiation surveillance.

18. PRIORITY RATIONALE:

Priority 1 because surveillance and maintenance are required to identify and avoid possible spread of contamination.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Alpha box removal operations have been performed in the facility on several occasions. These experiences indicate this task can be accomplished as planned.

Estimate is considered current and appropriate, similar to a definitive design.

20. ACCOMPLISHMENTS TO DATE:

Preliminary planning has begun.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: TA-3, SM29

5a. PROGRAM B&R CODE:

OPER: AF-80-10

CE:

CONST:

5b. OLD B&R CODE:

OPER: AF-80-10

CE:

CONST:

6. IDENTIFICATION NO: AL-1051-01/06-30

7. ACTIVITY NO: 2.4.1.02.0005

8. ACTIVITY TITLE: CMR Wing 9 Decommissioning

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	977	983					
Capital:							
Construction							
Equipment							
GPP							
Total	977	983					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,878K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Removal of highly contaminated alpha containment boxes and decontamination of building for reuse.

16. MILESTONE SCHEDULE (by fiscal year):

Removal of containment boxes	FY 1990

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding for both years is based on operational experience for similar containment box work.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Alpha box removal operations have been performed in the facility on several occasions. These experiences indicate this task can be accomplished as planned.

Because the work force is the same as for previous similar work, the level of confidence is high, as appropriate for definitive design.

20. ACCOMPLISHMENTS TO DATE:

Approximately 90% of all spent fuel has been packaged and 4 out of 12 shipments of fuel to offsite repository have been made.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-3, SM29

5a. PROGRAM B&R CODE:
OPER: AH-10-2092-2
CE:
CONST:

5b. OLD B&R CODE:
OPER: AH-10-20
CE:
CONST:

6. IDENTIFICATION NO: AL-1052-01/06-30
7. ACTIVITY NO: 2.4.1.02.0006
8. ACTIVITY TITLE: CMR Wing 9 Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		600					1300
Capital:							
Construction							
Equipment							
GPP							
Total		600					1300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

Status: SFMP-funded
Document Source: LANL WM Site Plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $9,700K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Removal of highly contaminated alpha containment boxes and decontamination of building for reuse.

16. MILESTONE SCHEDULE (by fiscal year):

Removal of containment boxes	FY 1990
Maintenance and surveillance	FY 1991-1994
Decontamination of facility	FY 1995-1998

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding is based on similar decontamination experiences at Los Alamos.

18. PRIORITY RATIONALE:

Removal of highly contaminated boxes will prevent spread of contamination to other parts of the building. Equipment in boxes is wearing out; delays will have a serious impact on the project.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Alpha box removal operations have been performed in the facility on several occasions.

Because of the increased environmental issues such as mixed wastes, the level of confidence for this estimate is appropriate for conceptual design.

20. ACCOMPLISHMENTS TO DATE:

Preliminary planning has begun.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-35

5a. PROGRAM B&R CODE:

OPER: AH-10-2092-1

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20

CE:

CONST:

6. IDENTIFICATION NO: AL-1053-01/06-30
7. ACTIVITY NO: 2.4.1.02.0007A
8. ACTIVITY TITLE: LAPRE Reactor Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	75						
Capital:							
Construction							
Equipment							
GPP							
Total	75						
RD&D (Non add)							
Operating							
Capital:							
Construction		Status: SFMP-funded					
Equipment		Document Source: LANL WM Site Plan					
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $75K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

This facility consists of a reactor vessel and its fuel reservoir tank which are buried approximately 15 feet deep at Technical Area 35.

The purpose of this project is to assess exposing the reactor and all of its associated components, to package and dispose of them in compliance with all current regulations, and to decontaminate the site by removing any contaminated soil.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare Project Plan	FY 1989
Perform site characterization	FY 1989
Removal of reactor and associated components	FY 1990
Remove contaminated soil	FY 1990
Restore site surfaces to original contours and finish	FY 1990
Close out project: Final Report	FY 1990

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding was based on the assumption that only reactor and fuel storage reservoir remained and on comparison to previous similar work at Los Alamos.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

Site characterization (electromagnetic surveys) has begun. A draft project plan has been prepared.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-35

5a. PROGRAM B&R CODE:

OPER: AH-10-2092-2

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20

CE:

CONST:

6. IDENTIFICATION NO: AL-1053-01/06-30
7. ACTIVITY NO: 2.4.1.02.0007B
8. ACTIVITY TITLE: LAPRE Reactor Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 4
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		200					
Capital:							
Construction							
Equipment							
GPP							
Total		200					
RD&D (Non add)							
Operating							
Capital:							
Construction		Status: SFMP-funded					
Equipment		Document Source: LANL WM Site Plan					
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $200K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

This facility consists of a reactor vessel and its fuel reservoir tank which are buried approximately 15 feet deep at Technical Area 35.

The purpose of this project is to assess exposing the reactor and all of its associated components, to package and dispose of them in compliance with all current regulations, and to decontaminate the site by removing any contaminated soil.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare Project Plan	FY 1989
Perform site characterization	FY 1989
Removal of reactor and associated components	FY 1990
Remove contaminated soil	FY 1990
Restore site surfaces to original contours and finish	FY 1990
Close out project: Final Report	FY 1990

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding was based on the assumption that only reactor and fuel storage reservoir remained and on comparison to previous similar work at Los Alamos.

18. PRIORITY RATIONALE:

Removal of the LAPRE vessel and associated equipment will enhance future TA-35 site development. At the present time, the area surrounding the vessel can only be used for temporary structures.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The original (pre-FY-1988) estimate of $45K was increased to the present estimate of $200K because of new compliance issues such as mixed wastes and because of concerns that more reactor-associated components remain than first assumed. These concerns have not been resolved; the level of confidence on the estimate is appropriate to conceptual design.

20. ACCOMPLISHMENTS TO DATE:

Site characterization (electromagnetic surveys) has begun. A draft project plan has been prepared.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-35

5a. PROGRAM B&R CODE:

OPER: AH-10-2092-2

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20

CE:

CONST:

6. IDENTIFICATION NO: AL-1054-01/06-30
7. ACTIVITY NO: 2.4.1.02.0004
8. ACTIVITY TITLE: Phase Separator Pit Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating					2000		
Capital:							
Construction							
Equipment							
GPP							
Total					2000		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

Status: Funding not requested yet
Document Source: LANL WM Site Plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,000K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Decommissioning of an underground structure that provided ventilation exhaust for the LAMPRE I Reactor, which was decommissioned in 1980.

16. MILESTONE SCHEDULE (by fiscal year):

Project would begin and be completed in FY 1993.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

See Funding Summary (Number 12).

This project has been previously reported with a TEC of $1.0M. Recent preliminary assessment of scope of work indicates that functioning ventilation equipment will need relocating. The $2.0M current estimate is more appropriate.

Estimate is based on outdated requirements and crude estimates of replacement costs for functioning filtration ductwork.

18. PRIORITY RATIONALE:

Priority 3 because the underground structure has on occasion filled with water. Leakage from the structure is also suspected. Removal will eliminate the source for a potential environmental release of radioactive and chemical contaminants.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The removal will be similar to other D&D tasks performed at Los Alamos in the last few years. However, relocation of existing functional air filtration equipment has not yet been assessed.

The level of confidence for this estimate is analogous to a perconceptual design.

20. ACCOMPLISHMENTS TO DATE:

None.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-21

5a. PROGRAM B&R CODE:

OPER: GF-72-92-02

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11-04

CE:

CONST:

6. IDENTIFICATION NO: AL-1055-01/06-30
7. ACTIVITY NO: 2.4.1.02.0003
8. ACTIVITY TITLE: TA-21 Buildings 3 and 4 South--Decommissioning
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating				1500	1500		
Capital:							
Construction							
Equipment							
GPP							
Total				1500	1500		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

Status: Funding not requested yet
Document source: LANL WM site plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $3,000K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Buildings 3 and 4 at TA-21 are to be decontaminated to allow removal of surplus contaminated equipment and residual uranium contamination. All but a few hundred grams of enriched uranium have been removed from the buildings, and TA-21 has been reverted to a Category III condition. The overall objective will be to decontaminate these enriched uranium processing buildings and contaminated waste effluent systems.

16. MILESTONE SCHEDULE (by fiscal year):

Building 3	FY 1992
Building 4	later in FY 1992
Complete project	FY 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Estimate is based on decontamination of adjacent buildings in 1978-80.

18. PRIORITY RATIONALE:

Contaminated gloveboxes and hoods need to be removed to prevent further spread of contamination. Utility tunnels need to be surveyed and cleaned to prevent environmental releases.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Mothballing efforts in FY 1988 were very successful. Remaining work is easy to plan and accomplish.

The level of confidence is conceptual design level because of changes in requirements since the estimate was made.

20. ACCOMPLISHMENTS TO DATE:

Mothballing took place in FY 1988 and FY 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: TA-52

5a. PROGRAM B&R CODE:

OPER: AH-10-2092-2

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20

CE:

CONST:

6. IDENTIFICATION NO: AL-1056-01/06-30

7. ACTIVITY NO: 2.4.1.02.0009

8. ACTIVITY TITLE: UHTREX Reactor Decommissioning

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	1200	1100					
Capital:							
Construction							
Equipment							
GPP							
Total	1200	1100					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

Status: D&D work in progress, SFMP-funded
Document Source: LANL WM Site Plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,966K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

The purpose of this project is to dismantle and remove the TA-52 Ultra High Temperature Reactor Experiment (UHTREX) reactor and its support systems and to decontaminate the building structure for possible reuse by other government programs.

16. MILESTONE SCHEDULE (by fiscal year):

Fiscal Year 1989

Remove reactor support systems and equipment (4/89)
Decommission the hot cells (6/89)
Remove reactor auxiliary systems equipment (9/89)

Fiscal Year 1990

Complete the removal of the reactor vessel and associated components
Remove filter pit and exhaust stack
Restore surfaces, and essential utilities and perform final survey
Final report
Close out the project

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding is based on detailed cost estimates.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. Continuation to completion is the most cost effective and safe way to accomplish this task.

19. LEVEL OF CONFIDENCE AND RATIONALE:

The detailed cost estimates are current, and enough work has been accomplished to indicate they are reliable; high level of confidence analogous to definitve design.

20. ACCOMPLISHMENTS TO DATE:

External structures removed. Support systems removal well under way.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: NE
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-2

5a. PROGRAM B&R CODE:

OPER: AH-10-2092-2

CE:

CONST:

5b. OLD B&R CODE:

OPER: AH-10-20

CE:

CONST:

6. IDENTIFICATION NO: AL-1057-01/06-30
7. ACTIVITY NO: 2.4.1.02.0008
8. ACTIVITY TITLE: Water Boiler Reactor Decommissioning

9. CATEGORY: CA: ER: X WM:

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	500						
Capital:							
Construction							
Equipment							
GPP							
Total	500						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

Status: SFMP-funded, planning and site characterization in progress

Document Source: LANL WM Site Plan

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $500K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Room 122 houses the Water Boiler Reactor, a low-power homogeneous reactor fuled with enriched uranyl nitrate solution. Operation of the reactor ceased in 1974, when the uranyl nitrate fuel was removed. The reactor vessel with its associated recombiner and plumbing is contained in a concrete graphite-lined biological shield structure that has an approximate volume of 73 square meters. The reactor and its biological shield structure and control room are housed in a frame building 18m x 28m x 8m.

The purpose of this project is to dismantle and remove the TA-2 Water Boiler reactor and its associated plumbing and to decontaminate Room 122 for reuse as light laboratory space.

16. MILESTONE SCHEDULE (by fiscal year):

Fiscal Year 1989

Complete Project Plan
Complete required environmental documentation
Remove support systems
Unstack removable shielding
Remove reactor vessel and contaminated components
Demolish the biological shield
Decontaminate and restore surface and perform final survey
Close out the project: prepare the final report

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Funding was based on similar work performed at Los Alamos.

18. PRIORITY RATIONALE:

Priority 1 because this is an ongoing, currently funded activity. The most cost effective and safe way to accomplish it is to proceed now; delays will require a duplication of effort. Other Lab groups sharing the area have already made arrangements for this planned disturbance in FY 1989.

19. LEVEL OF CONFIDENCE AND RATIONALE:

FY 1989 detailed estimates confirm that the original cost estimate is reasonable; high level of confidence analogous to definitive design.

20. ACCOMPLISHMENTS TO DATE:

Site characterization has been completed. Preparation of a Project Plan (draft) has been completed.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: TA-21

5a. PROGRAM B&R CODE:

OPER: GF-72-92-01

CE:

CONST:

5b. OLD B&R CODE:

OPER: GF-11-04

CE:

CONST:

6. IDENTIFICATION NO: AL-1070-01/06-30
7. ACTIVITY NO: 2.4.1.02.0001
8. ACTIVITY TITLE: TA-21 Buildings 3 and 4 South—Surveillance and Maintenance
9. CATEGORY: CA: ER: X WM:
10. PRIORITY: 1
11. APPLICABLE REQUIREMENTS: DOE 5820.2A
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating			20				
Capital:							
Construction							
Equipment							
GPP							
Total			*20				
RD&D (Non add)	*Surveillance and maintenance funding						
Operating							
Capital:							
Construction	Status: Funding not requested yet						
Equipment	Document Source: LANL WM Site Plan						
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $20K

14. KEY WORDS: D&D

15. ACTIVITY DESCRIPTION:

Surveillance and maintenance.

16. MILESTONE SCHEDULE (by fiscal year):

Surveillance and maintenance FY 1991

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Estimates are based on current utility, security, and radiation surveillance costs.

18. PRIORITY RATIONALE:

Surveillance and Maintenance required to identify and avoid possible spread of contamination.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Level of confidence is high, analogous to a definitive design.

20. ACCOMPLISHMENTS TO DATE:

Mothballing took place in FY 1988 and FY 1989.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

Waste Minimization
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.2.1.2 Waste Minimization—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

Types of Activities and Waste Streams Involved

The Los Alamos Waste Minimization Program Plan is meant to be comprehensive and addresses methods of reducing hazardous chemical waste, low-level and transuranic (TRU) radioactive waste, liquid radioactive waste, mixed waste, and sanitary waste.

The Laboratory Plan includes five general approaches in the minimization of waste. They are abatement and substitution, segregation and housekeeping, reuse and recycling, treatment, and personnel education.

Strategy for Completion and Accomplishments

Developing and implementing such an expanded minimization program effort was initiated in FY 1989 by appointing a Laboratory waste minimization "coordinator" and establishing a Waste Generator Interface Team within the HSE-7 Waste Management Group. By FY 1990, a formal, auditable plan for the waste minimization program will be developed. Interactions with and among the waste generator organizations, "the waste management coordinators," will be expanded, including goals of overall improvement in waste handling and volume reduction. Laboratory employee training and education in areas of waste segregation, materials control/substitution, waste handling procedures, and overall waste management will utilize volume reduction philosophy.

On a less formal basis, waste minimization activities involving materials substitution, recycle, and employee education to ensure proper waste segregation and handling have been practiced for many years. A formal, auditable "Waste Minimization Plan" has been drafted and currently is in review. In 1988, a contractor performed an audit of all chemical waste streams and provided a prioritized listing of problem wastes along with recommendations for reducing them.

In recent years, continuous monitoring of radioactive liquid waste pipelines that deliver the waste to the Laboratory treatment plant, coupled with generator education and continuous interaction, has reduced the volume of liquid generated by 50%. Certification of TRU waste and the educational effort that implemented it raised awareness of waste-generating activities, causing a 50% reduction of generated waste. Current planning includes implementing future on- and offsite recycling of acids, recovering silver from photographic processing, and substituting nonregulated solvents whenever possible.

Site Specific Definitions and Assumptions

Waste minimization at Los Alamos incorporates all activities to reduce the volume of waste generated and thus the volume that subsequently requires treatment, storage, and/or disposal. Personnel who generate waste through materials substitution, reduce usage of and/or contamination by hazardous

substances, and ensure proper control and segregation of wastes accomplish the actual minimization function.

Another waste minimization activity is recycling, which is the beneficial reuse or recovery of a waste material. Examples of recovery are recovering silver from photographic wastes and sending waste oil to a recycler for cleaning and resale. It is assumed that waste minimization activities are a critical element of the overall Los Alamos waste management effort in keeping waste quantities that require treatment, storage, and/or disposal at a fully manageable and regulatory acceptable level.

Major Driving Factors

Immediate Risks

If minimization activities were to cease, waste volumes currently requiring treatment, storage, and disposal would increase, thus increasing the potential for regulatory noncompliance, environmental release, and/or worker exposure.

Agreements

None currently.

Laws, Regulations, and DOE Orders

A "formal" documented waste minimization program is required by DOE Order 5820.2A and RCRA. The Laboratory also views an effective waste minimization program as an essential element of ensuring regulatory compliance and minimizing both current and future risks to operating personnel and the environment.

Status

Proactive Approaches

See section on strategy for completion and accomplishments.

Major Constraints and Uncertainties

None identified.

Major Problems and Resolution Efforts

None identified.

Summary

No formal activities are being reported under waste minimization.

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

Waste Treatment
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.3.1.2 Waste Treatment—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

Activities Relating to Transporting Wastes to Treatment Facilities and Operating These Facilities

Waste treatment is accomplished for multiple reasons, including reducing toxicity and volume of waste and complying with Federal regulations governing the disposing of wastes. All treatment of radioactive and mixed wastes is accomplished onsite, while most hazardous chemical waste is shipped by commercial contractors to offsite EPA-approved treatment, primarily incineration, facilities. The main goal of waste treatment at Los Alamos is to minimize long-term liability associated with disposing of all wastes.

A pipeline, most of which is doubly contained and fully monitored, transfers aqueous liquid wastes to the liquid waste treatment facilities. Small volumes of some outlying generator locations are transferred by truck. Solid radioactive wastes and chemical wastes are moved onsite by truck.

Goals and Objectives

Before discharging to the environment, low-level and transuranic (TRU) liquid wastes are treated to release limits that are outlined in DOE Order 5480.1.a.II. If the solid residues from treatment are low-level, they are stored as mixed waste; if they are TRU, they are stored as retrievables. During the next ten years, program emphasis in liquid waste treatment operations will be on the following:

- improving removal of radionuclides,
- reducing liquid discharges to a longer term goal of zero discharge, and
- maintaining the dewatered sludge product from treating low-activity wastes as low-level by controlling and minimizing the inputs of TRU and RCRA-regulated constituents.

Current Los Alamos onsite waste treatment capabilities include the following:

- chemically treating all low-level liquid wastes;
- chemically treating and solidifying TRU liquid wastes;
- compacting-baling low-level solid wastes;
- size reduction and/or cutting TRU metallic wastes;
- incinerating combustible TRU and some low-level mixed wastes;

- o WIPP certification by nondestructive examining retrieved TRU wastes;
- o chemically treating certain RCRA hazardous wastes, including aids, caustics, electroplating solutions, and other aqueous metal-containing wastes;
- o chemically oxidizing certain reactive/pyrophoric wastes; and
- o thermally oxidizing (open burning or detonation) high explosives (HE) and HE-contaminated solids.

The goals of solid low-level waste treatment are primarily to reduce the volume of waste requiring disposal, thus maximizing the lifetime of the disposal site, and to ensure compliance with DOE Order 5820.2A requirements for onsite burial. The goals of mixed waste treatment are to reduce the overall toxicity of wastes and most importantly to remove the mixed (hazardous) waste component whenever possible. TRU waste treatment has the overall goal of minimizing volume and complying with WIPP acceptance criteria.

Strategy for Completion and Accomplishments

Current and soon-to-be operational treatment capabilities will continue to be operated safely and effectively, while operations personnel will continually work to identify improvements. All facilities involving RCRA hazardous or mixed waste treatment will be appropriately permitted.

Newly identified new initiatives, which are being funded or for which funding requests have currently been submitted, include the following:

- o immobilizing sludge from the low-level liquid waste treatment plant ($1.2M) for DOE 5820.2A and RCRA compliance,
- o hazardous/mixed waste treatment facility ($8M) for RCRA compliance,
- o replacing the radioactive liquid waste treatment plant ($74M) for RCRA and future effluent discharge compliance,
- o TRU waste treatment facility ($2.7M) for WIPP waste acceptance compliance,
- o low-level and mixed low-level waste incinerator ($4M) for RCRA and DOE 5820.2A compliance, and
- o low-level compaction facility ($750K) for DOE 5820.2A compliance.

Shipping of hazardous waste to offsite treatment facilities will be continued in some cases until onsite capability is developed, although at least some offsite treatment is expected to continue largely because of cost effectiveness. A Laboratory goal is to become as "self contained" as reasonably practical.

Site Specific Definitions and Assumptions

Waste treatment is defined as any process activity that reduces the volume and/or toxicity of a waste material. Waste treatment may involve changing the size, such as compacting or cutting; the physical form, such as incineration or cementing; chemical form, such as chemical oxidation or incineration; and/or the radioactive content, such as the chemical preparation of a waste.

Also included in the Los Alamos definition is any activity that involves retrieving and preparing/certifying previously stored TRU wastes for WIPP. Included in the definition of treatment is nondestructively examining the retrieved packages for WIPP certification so that other physical treatment is not needed. It is assumed that a regulatory requirement for subsequent disposal or the request of a cost/benefit analysis, based upon cost of disposing of a treated versus untreated waste form, may determine the need to treat a waste.

Major Driving Factors

Immediate Risks

Until appropriate treatment capabilities can be implemented, inventories of stored wastes, and especially mixed low-level wastes, will continue to expand rapidly. This growth in stored waste inventory is perceived as a moderately, though continually, increasing risk potential. Currently, approximately 150 m^3 of mixed waste residues are in storage, with a similar volume of hazardous waste for which treatment must also be identified.

Agreements

By the State of New Mexico, a current RCRA regulation of hazardous waste storage at Los Alamos contains limits on the allowable quantity of waste permitted. The Laboratory exceeds this limit because it cannot treat all waste streams.

Federal and State Laws, Regulations, and DOE Orders

The State of New Mexico currently has regulatory authority for RCRA wastes; by the end of 1989, it is expected to gain authority to regulate mixed wastes. The ability to identify appropriate, environmentally acceptable, and cost-effective disposal for hazardous waste and the land disposal restrictions (LDR) are dictating current and proposed treatment, such as thermally treating explosive wastes and developing plans for incineration/thermal treatment capabilities for combustible liquids and mixed and low-level waste. The Los Alamos criteria for low-level solid waste burial, which meet DOE 5820.2A requirements, and the WIPP criteria for interim storing and subsequent geologic disposing of TRU waste require Los Alamos to immobilize its liquid and particulate radioactive waste streams.

Status

Proactive Approaches

The treatment facilities and/or programs identified in the Strategy for Completion and Accomplishment above are intended to treat Los Alamos waste before it becomes a compliance issue.

Major Constraints and Uncertainties

The ability of Los Alamos to obtain appropriate resources for installing and subsequently operating the above projects and to secure a RCRA permit must be considered to be in question at this time. The NEPA question of whether an EA or EIS is required for the new low-level/mixed low-level waste incinerator is currently seen as a major issue. If an EIS is required, an 18- to 24-month project delay and substantially increased costs will be encountered.

Major Problems and Resolution Efforts

The NEPA issue has been addressed to the DOE/HQ-NEPA Project Assistance Office (EH-25) for determination.

Efforts are being initiated to obtain technical assistance from the outside contractor for developing a posture with the State of New Mexico, when it assumes regulatory authority over mixed wastes, and for initiating the Part A and B permits.

Summary

Summary tables that follow provide schedules, priorities, and funding.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: TREATMENT

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
331020012	3098	TREATMENT/TA-55 TO TA-50 LIQUID WASTE LINE REPLACE	WM	T	1	39GF7302D	39GB0103	1000	0	1000	0	0	0	0	0
331020010	3090	TREATMENT: CORRUGATED METAL PIPE (CMP)SAW FACILITY	WM	T	1	35GF7301D 39GF7301D	35GF01 39GF01	575	575	0	0	0	0	0	0
331020003	3104	WASTE MANAGEMENT TREATMENT	WM	T	1	GF730196	GF01	0	1800	2133	2988	3287	3616	3977	4376
331020001	3088	TREATMENT - BASE PROGRAM	WM	T	1	GF730296	CH	0	7207	8492	9669	10563	11608	12749	14004
331020004	3099	TREATMENT/THERMAL DESTRUCTION	WM	T	1	[illegible] GF730296 35GF7302D	[illegible] GB03 35GB03	0	830	960	1074	1161	1257	1363	1479
* Subsubtotal *								1575	10412	12585	13731	15011	16481	18089	19859
* PRIORITY: 3															
331020014	3080	NEW RADIOACTIVE LIQUID WASTE TREATMENT PLANT	WM	T	3	39GF7302D	39GB0103	106000	0	0	0	0	0	2000	20000
331020016	3097	TREATMENT/RADIOACT LIQ WASTE LINE, TA-53 TO TA-50	WM	T	3	39GF7302D	39GB0103	28600	0	0	0	0	0	1056	1057
331020007	3096	TREATMENT/LLW/MW INCINERATOR	WM	T	3	35GF7302D	35GB03	3000	3000	0	0	0	0	0	0
331020009	3100	TREATMENT/TRU WASTE TREATMENT FACILITY	WM	T	3	35GF7301D	35GF01	2015	240	1000	465	310	0	0	0
331020015	3089	TREATMENT: SLUDGE SOLIDIFICATION BUILDING	WM	T	3	39GF7301D 39GF7302D	39GB0103	1800	0	0	0	500	600	700	0
331020011	3075	LOW-LEVEL WASTE COMPACTOR SYSTEM	WM	T	3	35GF7301D	35GF01	875	0	375	500	0	0	0	0
331020013	3094	TREATMENT/CULD ASSEMBLY, TEST & STORAGE FACILITY	WM	T	3	39GF7301D 39GF7301D	39GF01	600	0	0	0	100	500	0	0
331020008	3091	TREATMENT: EMERGENCY POWER SUPPLY	WM	T	3	39GF7302D	39GB0103	350	0	0	0	350	0	0	0
* Subsubtotal *								143240	3240	1375	965	1260	1100	3756	21057
** Subtotal **								144815	13652	13960	14696	16271	17581	21845	40916

PREDECISIONAL DRAFT

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PREDECISIONAL DRAFT

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-02-96

CE: 35-GF-73-02-D

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3088-01/06-30

7. ACTIVITY NO: 3.3.1.02.0001 01

8. ACTIVITY TITLE: Treatment—Base Program

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, NMHWA, HSWA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	7137	3067	9269	10193	11218	12339	13574
Capital							
Construction							
Equipment	70	425	400	370	390	410	430
GPP							
Total	7207	8492	9669	10563	11608	12749	14004
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Chemical Waste Management—The treatment of chemical waste includes bulk acid/base neutralization, incineration, chemical precipitation, and filteration. The RCRA chemical waste is either treated onsite or shipped offsite for treatment so that the waste is rendered nonhazardous thereby exempt from RCRA. The major cost associated with chemical waste treatment is the shipping of the waste offsite. The number one priority is assigned due to regulatory requirements and the immediate and adverse impact to ongoing operations at the laboratory.

Collection of LLW Liquid—Radioactive liquid wastes are collected in a dedicated, continously monitored pipeline system which discharges to a waste treatment facility. Processing at this plant, consisting of chemical/physical separation and ion exchange, serves to concentrate the radioactivity in a residue which is dewatered to a solids concentration of 30-40%. The dewatered solids are transferred to burial or storage at a site in Los Alamos. The liquid from which the activity was removed is analyzed to determine that both the radioisotope and chemical content are below guideline limits before discharge to the environment.

Hazardous Liquid Waste—Hazardous chemical wastes are converted by chemical reactions to nonhazardous residues which can be disposed, stored, or shipped offsite in compliance with RCRA.

Collection of TRU Liquid—Liquid wastes generated from plutonium processing operations (TRU liquids) exceed limits that can be safely treated in the LLW facility. These TRU liquids must be collected via separate pipelines and pretreated to yield a TRU solid waste and a LLW liquid stream that can be safely treated in the LLW facility.

Gas Cylinders—The treatment of gas cylinders are by detonation for unknown, reactive, and nontransportable cylinders. Also, some cylinders of known content (if they comply with DOT regs.), are sent offsite for treatment. The priority assigned is due to the need to comply with the Laboratory/DOE offsite policy and RCRA interim status requirements.

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Thermal Destruction—The operating and capital equipment funding designated for this function are partial support for the operation, engineering support, and maintenance of the Los Alamos TRU and LLW/MW incinerators. The objective of this function includes volume reduction of both TRU and LLW wastes, destruction of chemical constituents of both TRU-mixed and LLW-mixed wastes to maintain compliance with RCRA mixed waste regulations, disposal of biological wastes, thermal treatment of some environmental restoration wastes, and disposal of mixed-PCB wastes and selected RCRA hazardous wastes. Supported activities include preparation, incineration, residue retrieval, and final disposition.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing.

17. FUNDING BASIS (by fiscal year):

Lab indirect. Growth is projected in this area as a result of anticipated increase in the stringency of regulations.

18. PRIORITY RATIONALE:

The maintenance of all treatment operations is essential to ensuring both regulatory compliance and continuing protection of operating personnel and the environment. This activity is ongoing in an active facility. If the treatment is interrrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from radioactive and hazardous wastes and potential contamination of the environment from untreated waste streams.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Confidence is high.

20. ACCOMPLISHMENTS TO DATE:

Waste treatment is defined as any process activity that reduces the volume and/or toxicity of a waste material. Waste treatment may involve changing the size, such as compacting or cutting; the physical form, such as inceneration or cementing; chemical form, such as chemical oxidation or incineration; and/or the radioactive content, such as the chemical precipitation of a waste.

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Also included in the Los Alamos definition is any activity that involves retrieving and preparing/certifying previously stored TRU wastes for WIPP. Included in the definition of treatment is nondestructively examining the retrieved packages for WIPP certification so that other physical treatment is not needed. It is assumed that a regulatory requirement for subsequent disposal or the result of a cost/benefit analysis, based upon cost of disposing of a treated versus untreated waste form, may determine the need to treat a waste.

Waste treatment is accomplished for multiple reasons, including reducing toxicity and volume of waste and complying with Federal regulations governing the disposing of wastes. All treatment of radioactive and mixed wastes is accomplished onsite, while most hazardous chemical waste is shipped by commercial contractors to offsite EPA-approved treatment, primarily incineration, facilities. The main goal of waste treatment at Los Alamos is to minimize long-term liability associated with disposing of all wastes.

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-01-96

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01-03-06-0

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3104-01/06-30

7. ACTIVITY NO: 3.3.1.02.0003 07

8. ACTIVITY TITLE: Waste Management--Treatment

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5400.3, DOE 5820.2A, RCRA, TSCA, CAA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	1800	2133	2988	3287	3616	3977	4376
Capital							
Construction							
Equipment							
GPP							
Total	1800	2133	2988	3287	3616	3977	4376
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Stored TRU Waste Workoff, Mixed Waste Incineration Operations, Low-Level Compaction Operations, Interim Mixed Waste Treatment, Gas Cylinder Recontain., TRU Incin. Operation, TRU Size Reduction, Low-Level Waste Solidification Operations. Low-level solid waste treatment activities include high-pressure compaction and incineration (to be added in the near future). Mixed low-level waste also is treated by means of incineration in order to eliminate the hazardous constituent and reduce overall volume. Stored TRU waste workoff includes those operations to retreive the accumulated, stored inventory of uncertified TRU wastes, evaluate the waste for WIPP acceptance, and effect treatment where required and/or cost effective. Treatment processes required include physical cutting for size and value reduction and immobilization/cementing to reinforce free liquids and particulates. Incineration of a large faction of both newly generated and stored combustible TRU wastes will be accomplished as a cost-effective volume reduction treatment to minimize the quantity of this waste requiring eventual WIPP disposal.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing.

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

DWER

18. PRIORITY RATIONALE:

Priority 1 is assigned because maintaining all treatment operations is essential to ensuring both regulatory compliance and continuing protection of operating personnel and the environment. This activity is ongoing in an active facility. If the treatment is interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from radioactive and hazardous wastes and potential contamination of the environment from untreated waste streams.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Level of confidence is high.

20. ACCOMPLISHMENTS TO DATE:

Currently operating TRU waste facilities include the following: (1) Pad, pit, trench, and shaft storage of uncertified waste; (2) Pad storage of certified waste. Until shipment of newly generated wastes begin as scheduled in FY 89, newly generated certified waste is stored aboveground on an asphalt-paved pad and protected from the elements by a tension support structure. (3) Size Reduction Facility(SRF)—The SRF is designed to repackage and reduce the volume of metallic wastes such as gloveboxes, process equipment, and ductwork. SRF treatment packages waste in an appropriate container for eventual disposal at the WIPP and reduces waste volume, handling, and future WIPP disposal cost. Improvements to the SRF completed in early FY 87 included

providing additional work space, adding airlocks at all facility access points, and modifying the heating and ventilation systems. Through FY 88 and since production operations began at the SRF in March 1987, a total of 273.3m^3 of both newly generated and stored TRU waste has been processed, resulting in a output volume of 60.3m^3; the overall reduction factor was about 3.3.:1. All SRF output waste has been WIPP-certified. (4) Treatment Developing Facility (TDF)—The TDF contains the controlled-air incinerator (CAI) process that was successfully demonstrated for TRU waste in 1979. Since then, with modifications, other wastes successfully treated include beta-gamma radioactive waste, ion exchange resins, carcinogens, and other hazardous chemical wastes in both solid and liquid form. In FY 87 and before extensive dismantling required before final upgrade activities, the CAI was used to dispose of 4.1m^3 (144ft^3) of scintillation vials, a RCRA mixed waste. The plastic vials contained pseudocumene and a wide range of radionuclides, including some transuranics. Other wastes previously treated in the CAI included newly generated TRU waste and biological wastes; some containing trace quantities of radionuclides. Following completion of the system upgrade, the CAI will be primarily used to stabilize and reduce volume of newly generated and, possibly, stored TRU waste. Operating plans also include thermal destruction of mixed waste and other problem wastes until the new incineration system for LLW and hazardous mixed becomes operational in 1991. Operational start-up of the system following the current upgrade is now scheduled for FY 89.

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

Other treatment options currently are under investigation for specific waste streams with the goal of developing and implementing cost-effective treatments to remove the hazardous (RCRA) constituent or characteristic, thus rendering the waste only as low-level. Refer to ADS identification numbers AL-4054, AL-4053, AL-4050, AL-4048, and AL-4058 from the LANL RD&D Section of the AL Waste Management submission.

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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-02-96

CE: 35-GF-73-02-D

CONST: 39-

5b. OLD B&R CODE:

OPER: GB-03

CE: 35-GB-03

CONST: 39-

6. IDENTIFICATION NO: AL-3099-01/06-30

7. ACTIVITY NO: 3.3.1.02.0004 11

8. ACTIVITY TITLE: Treatment/Thermal Destruction

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5400.3, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	660	760	874	961	1057	1163	1279
Capital Construction Equipment GPP	170	200	200	200	200	200	200
Total	830	960	1074	1161	1257	1363	1479
RD&D (Non add) Operating							
Capital: Construction Equipment GPP							
Total							

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13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

This project funds the operation and upgrading of the Controlled Air Incinerator (CAI). The modified CAI housed in the Treatment Development Facility (TDF) at TA-50-37 is being upgraded for routine treatment of newly generated TRU wastes and mixed wastes. The facility was originally constructed as a development and demonstration project for volume reduction of defense TRU waste.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Production & Surveillance (P&S). Growth is projected based on anticipated increased stringency of regulations.

18. PRIORITY RATIONALE:

All of these supporting activities are considered critical to maintaining safety and ensuring environmental protection of current operations in accordance with applicable regulations. The maintenance of all treatment operations is essential to ensuring both regulatory compliance and continuing protection of operating personnel and the environment. This activity is ongoing in an active facility. If the treatment is interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from radioactive and hazardous wastes and potential contamination of the environment from untreated waste streams.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Confidence level is high.

20. ACCOMPLISHMENTS TO DATE:

The CAI was constructed in the TDF in 1975 as a development and demonstration process for column reduction and chemical stabilization of defense TRU wastes. These initial demonstration objectives were achieved in 1979 and, subsequently, the TRU-CAI process has been modified to treat other wastes. These additional wastes include beta-gamma waste, ion exchange resins, carcinogens, and other hazardous chemical wastes in both solid and liquid form.

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Other uses of the TRU-CAI were R&D programs conducted for the Army and Navy in which multiple test burns established operating conditions and design parameters necessary to thermally destroy colored smoke and flare compounds. A prototype transportable incinerator, developed from the test program is now being fabricated and tested at LANL for the Navy.

Jointly sponsored DOE/EPA incineration studies, involving PCBs, led to a EPA Region VI permit under the provisions of the Toxic Substances Control ACT (TSCA) for disposal treatment of radioactively contaminated liquid PCB wastes.

More recently, the NMEID granted interim authority for CAI treatment of selected RCRA wastes. In September 1986, a trial burn was conducted to obtain final RCRA authorization and the final trial burn report was submitted in March 1987.

Beginning in FY 86 and continuing through FY 88, the TRU-CAI process is undergoing a substantial production-oriented upgrade to simplify the operation and to improve the long-term reliability of the equipment.

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

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ALBUQUERQUE OPERATIONS OFFICE
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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3098-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0012 28

8. ACTIVITY TITLE: Treatment/TA-55 to TA-50 Liquid Waste Line Replacement

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction		1000					
Equipment							
GPP							
Total		1000					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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13. ACTIVITY TEC/TPC: $1,000K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Stainless steel lines are used to transfer liquid plutonium process waste from the plutonium facility (TA-55) to the treatment plant (TA-50). The secondary containment for these lines failed a vacuum leak test. Leaks in the stainless lines could result in undetected release of plutonium to the environment. The TA-55 liquid waste contains most of the radioactivity received at the TA-50 treatment plant. New double-encased lines including manholes and state-of-the-art monitoring is needed.

16. MILESTONE SCHEDULE (by fiscal year):

Start and complete construction 1990

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17. FUNDING BASIS (by fiscal year):

Cost estimates based on initiation of preconceptual engineering design.

18. PRIORITY RATIONALE:

Failure of existing lines would result in unacceptable contamination of the environment and potential adverse impacts on workers from exposure to radioactive contaminants. The maintenance of these operations is essential to ensuring both regulatory compliance and continuing protection of personnel and the environment. This activity is ongoing in an active facility.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Conceptual design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

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21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-GF-73-02-D

CONST: 39-

5b. OLD B&R CODE:

OPER:

CE: 35-GB-03

CONST: 39-

6. IDENTIFICATION NO: AL-3096-01/06-30
7. ACTIVITY NO: 3.3.1.02.0007 23
8. ACTIVITY TITLE: Treatment--LLW/MW Incinerator

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: 5820.2A; RCRA; NESHAPs; CAA-TAP

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment	3000						
GPP							
Total	3000						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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13. ACTIVITY TEC/TPC: $3,000K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The LLW/MW Incinerator was proposed and is being designed to reduce the volume of LLW committed to land burial and provide thermal destruction of chemical constituents in low-level mixed waste. Impetus is compliance with RCRA and mixed waste regulations (both EPA and NMEID) and DOE Orders 5820.2, Chapter III, and 5400.3. The system will be used to treat some combustible biological and environmental restoration wastes. The process will be installed in an existing facility. Residue will be analyzed and may be solidified before final disposition.

16. MILESTONE SCHEDULE (by fiscal year):

Complete design	FY 89
Start construction	FY 90
Construction	FY 91-92
Complete construction	FY 93

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

MIE in FY89 budget. Capital equipment cost estimates based on current industrial estimates for components.

18. PRIORITY RATIONALE:

Construction and operation of this facility is needed to establish and maintain compliance with DOE Orders 5820.2A and 5400.3 and EPA/NMEID regulatory requirements and to support waste minimization activities.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Conceptual design. Confidence level is high.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3091-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0008 24

8. ACTIVITY TITLE: Treatment--Emergency Power Supply

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: CWA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP				350			
Total				350			
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $350K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The radioactive liquid waste facility at TA-50-1 lacks emergency power for treatment and ventilation during electrical outages. An emergency generator and switching system is proposed that would ensure operations during electrical outages.

16. MILESTONE SCHEDULE (by fiscal year):

Construction 1992

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on the best professional judgment of staff.

18. PRIORITY RATIONALE:

This would reduce the risk of radioactive contamination to workers and the public and would ensure no disruption of mission.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptional design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

Short Range:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-GF-73-01-D

CONST: 39-GF-73-01-D

5b. OLD B&R CODE:

OPER:

CE: 35-GF-01

CONST: 39-GF-01

6. IDENTIFICATION NO: AL-3100-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0009 25

8. ACTIVITY TITLE: Treatment—TRU Waste Treatment Facility

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment	240	500	465	310			
GPP		500					
Total	240	1000	465	310			
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,015K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

A facility of approximately 4,000 ft^2 is required for processing a variety of TRU wastes to meet DOE disposal criteria. Facility requirements include a properly controlled TRU waste processing area, staging area, and packaging area, and personnel facilities including change rooms. Process area exhaust air filtering will be required and should comprise prefilter and two stage HEPA filter assembly located external to the building. Individual sewer systems are required for sanitary and industrial waste. The latter will require collection for either processing at the site or transfer to TA-50 for the needed processing. Facility equipment including glove boxes and waste processing items will be provided with separate capital equipment funding.

In accordance with current DOE Defense Waste planning documents, TRU wastes placed into storage at Los Alamos since 1971 are to be retrieved, processed where required for certification to meet WIPP acceptance criteria, and eventually shipped to WIPP for permanent geologic disposal. As part of this overall project, the TRU Waste Processing Facility is required for accomplishing several unique processing operations on portions of the currently stored wastes. Failure to provide this facility will result in Los Alamos not being able to meet the DOE-established schedule for workoff and transfer to WIPP of our stored TRU wastes.

16. MILESTONE SCHEDULE (by fiscal year):

Complete design	1989
Start and finish construction	1990

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on completed preconceptual engineering design.

18. PRIORITY RATIONALE:

This project is required for eventual WIPP disposal of accumulated, stored waste, in accordance with 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Implementation stage. Confidence level is high.

20. ACCOMPLISHMENTS TO DATE:

Design initiated.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment (Base)

5a. PROGRAM B&R CODE:

OPER:

CE: 35-GF-73-01-D

CONST: 39-GF-73-01-D

5b. OLD B&R CODE:

OPER:

CE: 35-GF-01

CONST: 39-GF-01

6. IDENTIFICATION NO: AL-3090-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0010 26

8. ACTIVITY TITLE: Treatment--Corrugated Metal Pipe Saw Facility

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment	250						
GPP	325						
Total	575						
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $575K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The Corrugated Metal Pipe (CMP) Saw Facility, constructed in FY 89-90 and operated through FY 91, will be stripped of the CMP saw equipment and configured for the TRU waste sorting, processing, and immobilization operations during FY 92. An FY 93 startup for the processing operations is scheduled. Refitting will include accomplishing any upgrading needed to ensure the facility meets all applicable design standards for a "Moderate Hazard Nuclear Facility." Glove box lines will be installed for accomplishing waste package opening, waste sorting, and repackaging. An immobilization system will be designed and installed to process any liquids, particulates, and other waste forms unacceptable at WIPP.

This Defense Waste Management-funded project is the final step in implementing the Lab "Final TRU Waste Inventory Workoff Plan." This plan, developed per DOE directions and consistent with DOE-wide plans, provides the means for disposing of essentially all TRU wastes accumulated at the Lab since 1970 at the WIPP. The processing operations will ensure compliance of Lab wastes with WIPP acceptance criteria. The concept of one facility to sequentially serve at least two separate functions was identified early workoff planning as the most cost-effective means of meeting the DOE program goals.

16. MILESTONE SCHEDULE (by fiscal year):

Initiate design	1989
Complete design and initiate construction	1990-92
Construction complete	1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on completed preconceptual engineering design.

18. PRIORITY RATIONALE:

This is an ongoing activity in an active facility. Interuption of this activity could lead to improper processing of TRU wastes, which could result in near-term adverse impacts such as increased exposure to workers and a potential for environmental releaes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Implementation. Confidence level is high.

20. ACCOMPLISHMENTS TO DATE:

Design initiated.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-GF-73-01-D

CONST: 39-GF-73-01-D

5b. OLD B&R CODE:

OPER:

CE: 35-GF-01

CONST: 39-GF-01

6. IDENTIFICATION NO: AL-3075-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0011 27

8. ACTIVITY TITLE: Low-Level Waste Compactor System

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment			500				
GPP		375					
Total		375	500				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $875K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

An approximately 1,600-ft^2 metal building on a concrete slab to house a new compactor-baler (Waste Management capital equipment funded) will be constructed. Because low-level radioactive solid wastes will be processed, building ventilation will include HEPA filtration. Utilities requirements include electricity, water, sanitary sewer, and telephone.

Compaction/baling of low-level solid radioactive waste has been accomplished in a facility at Area G since 1977 as a primary means of reducing waste volume and stabilizing waste form for burial. The current facility and equipment is rapidly approaching the end of its useful lifetime, and technological advances have resulted in far more capable and efficient equipment. This new equipment is not compatible with our existing, small facility. In addition to obtaining even greater compaction, the new, larger equipment will permit considerably greater quantities of waste to be processed. If not funded, waste volumes buried will continue to be substantially greater than need be, thus utilizing our limited available burial space at a faster rate.

16. MILESTONE SCHEDULE (by fiscal year):

Design completed	1990
Start and complete construction	1991-92

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on initiation of preconceptual engineering design.

18. PRIORITY RATIONALE:

This facility is required to meet DOE 5820.2A requirements on packaging/minimization of waste requiring disposal.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-01-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-01

6. IDENTIFICATION NO: AL-3094-01 06-30
7. ACTIVITY NO: 3.3.1.02.0013 29

8. ACTIVITY TITLE: Treatment—Cold Assembly, Testing, and Storage Facility

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP				100	500		
Total				100	500		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $600K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

This project includes the construction at TA-50 of an approximately 5,000-ft^2 pre-engineered metal building on a concrete slab floor with lights, 5-ton overhead bridge crane, exhaust fan, and drive-through doors.

The function of this building is to provide a noncontaminated, weather-protected work area for assembly and testing of equipment and processes before installation and storage for weather sensitive equipment and materials.

The Waste Management Group Technical Support Section provides engineering, fabrication, assembly, and process demonstration of waste treatment processes in support of the Lab Waste Management programs. This requires the acquisition and storage before assembly of large quantities of equipment, such as process blowers, burners, pumps, and gloveboxes. Section equipment (fork trucks, hydraulic work platforms, etc.) also require weather-protected storage. Materials, such as waste stream fixation media (envirostone, cement, etc.), also require weather-protected storage before use.

16. MILESTONE SCHEDULE (by fiscal year):

Facility design	1992
Title II	1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on best professional judgment of staff.

18. PRIORITY RATIONALE:

Activities to allow the assembly and testing of new processes or modifications of equipment and processes before installation in the various treatment process lines. This promotes compliance to DOE 5820.2A QA requirements by directly contributing to the reduction of risks, compliance to design, and performance parameters and minimizes program costs and enhances the Lab waste management mission.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3080-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0014 33

8. ACTIVITY TITLE: New Radioactive Liquid Waste Treatment Plant

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, CWA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction						2000	20000
Equipment							
GPP							
Total						2000	20000
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $106,000K (Costs continue in out years.)

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The radioactive liquid waste treatment plant will replace the existing plant at TA-50-1. The current 25-year-old plant is functionally obsolete and is not in compliance with proposed environmental and waste management regulations. An alternative approach of upgrading the existing plant would require long-term suspension of waste management operations, which would be unacceptable to most Lab programs generating radioactive liquid wastes (such as TA-55). In addition to providing an increased level of ESH protection, the new facility would provide state-of-art treatment of radioactive liquid waste, increase the flexibility and comprehensiveness of treatment facilities, ensure reliable service to programmatic waste generators, and—through "zero discharge" technology—guarantee long-term compliance with environmental and waste management regulations.

16. MILESTONE SCHEDULE (by fiscal year):

Design complete	1994
Construction anticipated	1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on best professional judgment of staff.

18. PRIORITY RATIONALE:

This is a Priority 3 project in FY 89 to provide new construction and equipment to maintain the base waste treatment program and avoid mission disruption.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Conceptual design. Confidence level is low.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3089-01/ 06-30
7. ACTIVITY NO: 3.3.1.02.0015 34

8. ACTIVITY TITLE: Treatment—Sludge Solidification Building

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5480.1A, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction				500	600	700	
Equipment							
GPP							
Total				500	600	700	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,800

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The present practice of vacuum filtering the TA-50-1 treatment plant residue and burying it at the solid waste management area at TA-54 is expected to be prohibited by DOE Order 5820.2A and by RCRA. A facility to allow solidification of TA-50-1 treatment plant residue will be needed.

16. MILESTONE SCHEDULE (by fiscal year):

Complete design and start construction	1992
Complete construction	1993-94

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on best professional judgment of staff.

18. PRIORITY RATIONALE:

This project would ensure technical compliance with DOE 5820.2A and RCRA and would minimize the volume of waste generated.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is low.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Treatment

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-D

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3097-01/ 06-30

7. ACTIVITY NO: 3.3.1.02.0016 35

8. ACTIVITY TITLE: Treatment—Radioactive Liquid Waste Line, TA-53 to TA-50

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction						1056	1057
Equipment							
GPP							
Total						1056	1057
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $28,600K (Costs continue in out years.)

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Currently Los Alamos Meson Physics Facility (LAMPF) and other programs at TA-53 release radioactive water to the TA-53 sanitary sewage lagoons on a routine basis. The radioactive contaminated water contains radionuclides of 3H, 22Na, 54Mn, 57 & 58Co, 7Be and others. It has been hypothesized that if DOE implements the zero discharge limits for the outflow of lagoons, they likely will mandate zero release of radioactive water wastes to lagoons. Should this occur, the only suitable alternative would be to construct a liquid radioactive waste line from TA-53 to TA-50 where LAMPF liquid wastes could be processed centrally with other Lab liquid wastes. Transport by tank truck from TA-53 to TA-50 is judged impractical since volumes of >26000 gallons per month are released to the lagoons. Failure to fund this project, assuming LAMPF is not permitted to release radioactive water to the lagoons, would necessitate shipment of liquid wastes over public access highways at a significantly increased risk to public health and safety. Another alternative would hold activated water for longer periods in accelerator, resulting in greater radiation risk to maintenance personnel.

16. MILESTONE SCHEDULE (by fiscal year):

Complete design and start construction	1994
Complete construction	1995-96

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on best professional judgment of staff.

18. PRIORITY RATIONALE:

This would reduce risk and ensure no disruption of mission.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is low.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

Waste Storage
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.4.1.2 Waste Storage—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

Activities Relating to Transporting Wastes to Storage Facilities and Operating Those Facilities

At Los Alamos, storage of hazardous and mixed wastes is accomplished primarily as an interim measure until appropriate treatment disposal means are identified for waste streams. Currently, 391 m^3 of these wastes are in storage. The Laboratory experienced almost a 200% growth in mixed low-level waste storage in 1988, with a similar growth rate projected for 1989.

During FY 1989, a comparatively low-cost tension support structure was put into use for storing some of the mixed wastes. Operating this storage facility in FY 1990 will be continued in accordance with all applicable regulations. To ensure proper overall management of all such mixed low-level wastes, one full-time scientific (staff) person was added in FY 1989.

The Laboratory TA-54, Area L site contains waste transfer, packaging, and storing facilities, which are used for accumulating, packaging, and storing chemical wastes. The site contains one roofed, but otherwise open, concrete storage pad, which encompasses 148.2 m^2, and a smaller enclosed metal building, which covers 18.2 m^2. Both are used for RCRA waste storage under the interim RCRA permit status.

Other storage throughout the Laboratory for hazardous waste includes the following:

- a dedicated storage building for PCB wastes,
- a modular waste storage building with a capacity of up to 20 55-gallon drums, and
- two 2120-l tanks at the Pan Am Motor Pool for collecting used motor oil before recycling.

All mixed low-level and hazardous waste facilities are constructed, operated, inspected, and maintained in accordance with established applicable regulations.

Retrievable storage facilities for Los Alamos-generated TRU wastes are continuing to be provided for, operated, and monitored as necessary to comply with DOE 5820.2A. Until direct shipment operations begin, certified waste that meets WIPP acceptance requirements will be stored separately from previous noncertified wastes. Since the storing of TRU waste in 1971, approximately 7600 ^{3} of currently certified and uncertified waste has been accumulated. Approximately 30 m^3 of this volume is remote-handled TRU, with the balance being contact-handled.

Most of the Laboratory's TRU waste is currently stored on four asphalt pads measuring 12.2 m by 123.4 m (40 ft by 405 ft), one of which is currently designated for WIPP-certified wastes.

Uncertified waste packages, drums, and crates are stacked 3.6-4.8 m high on the pavement. As the stack progresses down the pad, the top and sides are covered with 19-mm-thick plywood, and the entire stack is enclosed with 0.5 mm nylon-reinforced vinyl sheeting. The stack is then covered with 1-2 m of tuff to create an artificial mound. One modified pit has also been used for TRU waste storage in much the same manner. Other pits and shafts, specially modified for this special storage, have been applied to smaller fractions of this waste that has unique packaging or waste content characteristics.

Packages of certified/certifiable TRU waste are stacked on one of the asphalt storage pads, which is under the protective covering of a tension support structure. This movable structure is fabricated by stretching reinforced vinyl material between aluminum I-beams that are formed into arches. The present structure measures 180 ft long by 50 ft wide and has space for up to approximately 3-4 years of waste accumulation. This structure also is expandable. Up to approximately 50% of TRU is mixed.

All onsite transport of radioactive solid, mixed, and hazardous waste for storage is by government truck. Directed by Waste Management personnel or by the Waste Management personnel themselves, trained waste handlers collect waste on an "on-call" basis from generators and collection areas. Procedures for onsite transportation are given in the Los Alamos "Onsite Transportation Manual."

Goals and Objectives

The goal of waste storage at Los Alamos is to control hazardous materials in such a way as to eliminate the potential for their endangering life or the environment. The Laboratory goal is to have all storage in full compliance with applicable regulations. Currently, this goal is met for all hazardous wastes. All mixed low-level waste storage is in compliance with interim standards; however, storing certain wastes, especially containers of liquids and reactives, does not comply with the RCRA Part B permit standard.

Strategy for Completion and Accomplishments

Current storage facilities will continue to be operated in accordance with all applicable regulatory requirements.

The Laboratory plans to build two additional RCRA storage pads that will be operational by the end of FY 1991. Both pads will have secondary containment and will be covered; this design meets the requirements of 40 CFR 264. Although originally planned for chemical wastes, these pads will also store mixed wastes until the treatment and disposal methods are available to handle the wastes. In the interim period, modifications to existing storage for mixed liquid and reactive wastes will be provided.

The Laboratory has also submitted a line item proposal ($2.6M) to build a receiving and storage facility for mixed waste that will support the planned low-level/mixed low-level waste incinerator and hazardous/mixed waste treatment facility. The building will be used to accumulate and repackage mixed waste for further treatment. The earliest this facility could be operational is FY 1996.

Site Specific Definitions and Assumptions

Storing wastes means holding the material until developing and implementing the required treatment and/or disposal capability meets applicable regulations. Certain hazardous, mixed, and radioactive (TRU) wastes are stored at Los Alamos. The definition of storage also includes accumulating waste for a shorter term at a central Laboratory location with the intentions of building an inventory that is cost-effective to treat or dispose of. Based upon this definition, it is assumed that the quantity of waste currently in storage will decline substantially as new treatment and/or disposal processes become fully operational; therefore, the only storage operation essentially will be shorter-term. Not included in this definition of storage are the activities at the large number of waste generator facilities throughout the Laboratory where relatively small volumes of waste are accumulated for collection by waste management.

Major Driving Factors

Immediate Risks

No immediate risks exists in the continued storage of wastes that is in accordance with applicable regulations. Some increased risk, however, is inherent in still increasing volume of hazardous and mixed waste in storage.

Because the delay of initiating Los Alamos shipments of TRU waste to WIPP is at least several years, it will result in an expanding inventory of the TRU materials in storage. Although this expansion is not an immediate risk, some increased risk must be assumed.

Agreements

The current Laboratory RCRA permit limits the quantity of regulated waste that may be accumulated in existing storage facilities. Approval to construct additional storage capability would have to be obtained from regulatory authorities.

Federal and State Laws, Regulations, and DOE Orders

To avoid structural degradation due to weathering, DOE Order 5820.2A and WIPP Waste Acceptance Criteria require that all TRU waste packages be properly stored before shipping. RCRA also has specific requirements for storing hazardous and mixed wastes, particularly in the case of storing wastes for more than 90 days, which requires a permitted facility. The storage facilities at Los Alamos are currently operating under interim status and are included in the submitted Part B.

Status

Proactive Approaches

Los Alamos is planning for new mixed and hazardous waste storage facilities and has requested funding to avoid future compliance issues.

Major Constraints and Uncertainties

Funding for the line item/hazardous waste facility is uncertain at this time. Los Alamos will need to interact with regulatory authorities, currently assumed to be the State of New Mexico, on the design, construction, and subsequent permitting of the mixed waste facilities. The specifics regarding this interaction are not known. Because the State of New Mexico does not yet have mixed waste regulatory authority, there has been no indication of what regulation will be applied to mixed waste storage. The specifics of such regulation could significantly effect facility requirements and associated operating costs for both mixed low-level and TRU wastes.

Major Problems and Resolution Efforts

Efforts are being initiated to obtain technical assistance from an outside contractor for developing a posture with the State of New Mexico when it assumes regulatory authority over mixed wastes and for initiating the Part A and B permits.

Summary

The summary tables that follow provide schedule, priorities, and funding.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: STORAGE

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
341020002	3079	MIXED LLW STORAGE/TRU WASTE STORAGE OPERATIONS	WM	S	1	GF730197	GB0103	0	581	604	633	665	949	983	1020
341020001	3084	STORAGE/CHEMICAL WASTE MANAGEMENT	WM	S	1	35GF7301E GF730297 35GF7302E	35GF01 GH 35GB0103	0	1051	1288	1459	[illegible]	1734	1992	2167
* Subsubtotal *								0	1632	1892	2092	2255	2683	2975	3187
* PRIORITY: 3															
341020005	3256	MIXED WASTE RECEIVING & STORAGE FACILITY	WM	S	3	39GF7302E	39GB0103	2800	0	0	0	500	1000	1300	0
341020004	3086	STORAGE/WASTE OIL & STORAGE FACILITY	WM	S	3	39GF7301E	39GF01	750	0	0	750	0	0	0	0
* Subsubtotal *								3550	0	0	750	500	1000	1300	0
** Subtotal **								3550	1632	1892	2842	2755	3683	4275	3187

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Storage

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-E

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3256-01/06-30
7. ACTIVITY NO: 3.4.1.02.0005
8. ACTIVITY TITLE: Mixed Waste Receiving and Storage Facility
9. CATEGORY: CA: ER: WM: X
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A, DOE 5400.3, CAA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction				500	1000	1300	
Equipment							
GPP							
Total				500	1000	1300	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,800K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Pending RCRA and DOE regulations will require the segregation and special handling of materials that are contaminated with both radioactive and hazardous wastes. The Laboratory has no current place that is suited for the proper storage and handling of this new class of materials.

We propose the construction of a dedicated 1200-square-foot metal building on a concrete pad at TA-50 for mixed waste. Utility requirements include water, electricity, natural gas, and telephone. The heating and ventilation system would have to be built to standards for handling radioactive materials.

16. MILESTONE SCHEDULE (by fiscal year):

Planning/begin construction	FY 1992
Construction	FY 1993
Complete construction	FY 1994

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (weapons)

18. PRIORITY RATIONALE:

Technical Compliance with proposed state and EPA regulations, and DOE orders.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Low--Preconceptual design equivalent.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Storage (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-02-97

CE: 35-GF-73-02-E

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-GB-01-03

CONST: 39-

6. IDENTIFICATION NO: AL-3084-01/06-30

7. ACTIVITY NO: 3.4.1.02.0001 02

8. ACTIVITY TITLE: Storage—Chemical Waste Management

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, HSWA, NMHWA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	991	1138	1309	1440	1584	1742	1917
Capital							
Construction							
Equipment	60	150	150	150	150	250	250
GPP							
Total	1051	1288	1459	1590	1734	1992	2167
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The storage of chemical waste requires extensive record keeping, waste management, and verification. This activity includes all aspects of waste management onsite except minimization. Onsite storage is either in satellite, <90-day storage, or >90-day storage. Activity associated with storage is required under the RCRA and Lab administrative policy to ensure worker safety and the maximum protection of the environment.

16. MILESTONE SCHEDULE (by fiscal year):

Continuing operations

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

This activity is ongoing in an active facility. If the storage is interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from hazardous wastes and potential contamination of the environment from improperly stored hazardous wastes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Implementation current; confidence is high.

20. ACCOMPLISHMENTS TO DATE:

At Los Alamos, storage of hazardous and mixed wastes is accomplished primarily as an interim measure until appropriate treatment disposal means are identified for waste streams. Currently, 391 m^3 of these wastes are in storage. The Laboratory experienced almost a 200% growth in mixed low-level waste storage in 1988, with a similar growth rate projected for 1989.

During FY 1989, a comparatively low-cost tension support structure was put into use for storing some of the mixed wastes. Operating this storage facility in FY 1990 will be continued in accordance with all applicable regulations. To ensure proper overall management of all such mixed low-level wastes, one full-time scientific (staff) person was added in FY 1989.

The Laboratory TA-54, Area L site contains one roofed, but otherwise open, concrete storage pad, which encompasses 148.2 m^2, and a smaller enclosed metal building, which covers 18.2 m^2. Both are used for RCRA waste storage under the interim RCRA permit status.

Other storage throughout the Laboratory for hazardous waste includes the following: 1) a dedicated storage building for PCB wastes, 2) a modular waste storage building with a capacity of as many as 20 55-gallon drums, and 3) two 2120-l tanks at the Pan Am Motor Pool for collecting used motor oil before recycling.

All mixed low-level and hazardous waste facilities are constructed, operated, inspected, and maintained in accordance with established applicable regulations.

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Storage (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-01-97

CE: 35-GF-73-01-E

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-GF-01

CONST: 39-

6. IDENTIFICATION NO: AL-3079-01/06-30

7. ACTIVITY NO: 3.4.1.02.0002 08

8. ACTIVITY TITLE: Mixed LLW Storage/TRU Waste Storage Operations

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: 5400.3, 5820.2A, RCRA,

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	581	604	633	665	699	733	770
Capital							
Construction							
Equipment					250	250	250
GPP							
Total	581	604	633	665	949	983	1020
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Mixed LLW requiring storage pending development and/or implementation of appropriate treatment and/or disposal means includes such streams as liquid treatment plant sludge uranium chips/turnings and other miscellaneous organic, inorganic, and reactive materials contaminated or activated with radioactivity. Proper storage is mandated by RCRA. Since 1970, DOE has required storage of all solid wastes defined as TRU. Currently, approximately 7,600 m^3 of WIPP-certified TRU waste is in such retrievable storage.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

Continuing storage operations include providing inspection and operating storage facilites to assume full containment of all hazards. As such, Priority 1 is assigned. This activity is ongoing in an active facility. If the storage activities are interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from improperly stored radioactive and mixed waste and potential contamination of the environment from the inability to properly handle these wastes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Level of confidence is high.

20. ACCOMPLISHMENTS TO DATE:

Retrievable storage facilities for Los Alamos-generated TRU wastes are continuing to be provided for, operated, and monitored as necessary to comply with DOE 5820.2A. Until direct shipment operations begin, certified waste that meets WIPP acceptance requirements will be stored separately from previous noncertified wastes. Since the storing of TRU waste in 1971, approximately m^3 of currently certified and uncertified waste has been accumulated. Approximately 30 m^3 of this volume is remote-handled TRU, with the balance being contact-handled. Most of the Laboratory's TRU waste is currently stored on four asphalt pads measuring 12.2 by 123.4 m (40 by 405 ft), one of which is currently designated for WIPP-certified wastes. Uncertified waste

packages, drums and crates, are stacked 3.6-4.8 m high on the pavement. As the stack progresses down the pad, the top and sides are covered with 19-mm-thick plywood, and the entire stack is enclosed with 0.5mm nylon-reinforced vinyl sheeting. The stack is then covered with 1-2m of tuff to create an artificial mound. One modified pit has also been used for TRU waste storage in much the same manner. Other pits and shafts, specially modified for this special storage, have been applied to smaller fractions of this waste that has unique packaging or waste content characteristics.

Packages of certified/certifiable TRU waste are stacked on one of the asphalt storage pads, which is under the protective covering of a tension support structure. This movable structure is fabricated by stretching reinforced vinyl material between aluminum I-beams that are formed into arches. The present structure measures 180 ft long by 50 ft wide and has space for up to approximately 3-4 years of waste accumulation. This structure also is expandable. Up to approximately 50% of TRU is mixed.

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Storage

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-01-E

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-01

6. IDENTIFICATION NO: AL-3086-01/ 06-30
7. ACTIVITY NO: 3.4.1.02.0004 30

8. ACTIVITY TITLE: Storage—Waste Oil and Storage Facility

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, 5400.3

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP			750				
Total			750				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $750K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The facility will bulk hazardous organic liquid wastes for offsite shipment or onsite incineration. The facility consists of two 1,000-gallon storage tanks with associated pumps and piping; waste containers are emptied into the tanks and their contents mixed and then loaded into tank trucks for offsite shipment. The tanks and the loading areas have secondary containment. Both areas are covered with a roof and protected with a foam firefighting system. The tank area and the truck loading pad cover 1,600 sq. ft. The facility will correct the conditions noted in RCRA notices of violations, reduce waste analytical costs, reduce treatment costs and improve safety. RCRA inspectors have repeatedly cited the Laboratory for exceeding the permitted volume of wastes in storage. Wastes must be accumulated for offsite shipments under several different contracts; the total volume exceeds the capacity of current facilities. This facility adds to the permitted storage capacity. The Laboratory now ships organic liquid wastes offsite in drums, each drum requiring analysis costing $1,500 to $3,000. The facility allows bulking of the wastes after less costly screening analysis and reduces annual analytical costs by $750K. Offsite incineration costs are reduced by $60K per year by shipping bulked wastes. Shipping in bulk reduces drum handling, improves safety, and reduces spill risks.

16. MILESTONE SCHEDULE (by fiscal year):

Start construction	FY 90
Complete construction	FY 91

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on completed preconceptual engineering design.

18. PRIORITY RATIONALE:

Compliance with DOE 5400.3, state, and EPA regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Conceptual design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

Waste Disposal
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.5.1.2 Waste Disposal—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

Activities Relating to Transporting Wastes to Disposal Facilities and Operating These Facilities

The Los Alamos burial site for low-level radioactive solid waste at Area G is situated on Mesita del Buey in TA-54. The area has been used since 1957 and is expected to remain active. In FY 1977, the active portion of the site was expanded to a total area of 63 acres; further expansion of this area is planned within the next three years. Burial facilities within the area include pits and shafts, all of varying dimensions.

Certain nonreactive hazardous chemical wastes previously have been buried in pits and shafts along with the radioactive and mixed wastes at Area G. Such wastes include asbestos, beryllium residues, empty pesticide containers, PCB-contaminated solids (transformers, capacitors, solids [before 1979]) and solid trash contaminated with known or suspected carcinogens. In 1980, EPA permitted disposal of PCB solid waste in special facilities at Area G. Landfill of nonradioactive material regulated under RCRA was discontinued May 1, 1985.

Mixed wastes were buried as low-level waste at Area G until April 1985. In accordance with the anticipated DOE/EPA regulations, the Laboratory discontinued this practice on May 1, 1985. This definition was modified in May 1987 and resulted in additional wastes being managed as mixed wastes. Mixed wastes have been placed in storage at Area L and Area G until they can be treated and disposed of (see LANL Waste Storage Section 3.4.1.2, above).

Procedures and facilities have been developed at Los Alamos to ensure proper management and disposal of radioactive solid waste. Once approved by DOE/AL, any shipment received from offsite facilities must meet the same guidelines as those established for onsite facilities and onsite waste generators. No offsite shipments were received for burial in the past several years.

The Laboratory Health and Safety Manual describes the standard low-level waste content and packaging for disposal. The Laboratory Onsite Transportation Manual contains the criteria for transporting radioactive material onsite to disposal areas.

At the disposal site, vehicles containing waste are first stopped at a barrier gate for documentation review. The signature of the waste generator certifies compliance with all applicable disposal requirements; the signature from health physics certifies that packaging and transportation requirements have been met. The vehicle is then moved just beyond the barrier for physical inspection. Radiation levels are checked and contamination swipes are taken. Waste Management personnel verify that all aspects of the waste packaging and transportation comply with proper procedures. When all disposal criteria have been satisfied, the shipment is directed to the appropriate location for disposal.

Most waste is buried in large pits ranging in size from 120-180 m long, 8-30 m wide, and 8-14 m deep. Greater confinement for disposing in a pit is practiced for those wastes with TRU contamination between 10 nCi/g and 100 nCi/g. To increase worker safety and to provide better isolation following burial, certain Los Alamos wastes are buried in augered shafts measuring 0.3-3.6 m in diameter and up to 20 m deep. Some shafts, such as those for burying high-activity tritium waste, are metal lined; the others are generally not lined. To ensure complete containment of waste by undisturbed tuff, pits and shafts are filled to a level 1 m (3 ft) below the spill point, the lowest point on the facility rim. Pits are then covered with tuff and a layer of topsoil and are revegetated. Shafts are capped with concrete to the entire final meter.

Annual buried waste volumes range from approximately 3500 m^3 to 8000 m^3, with an average of about 5000 m^3 in recent years. Volumes vary largely because of the occurrence of decontamination/decommissioning activities.

Goals and Objectives

Goals for operating the waste disposal area include controlling radiation and contamination to achieve compliance with DOE 5820.2A Performance Objectives, assuring compliance with the appropriate transportation requirements, and providing proper documentation of all operations. An important related aspect is receiving and accepting waste according to the monitoring procedures developed by Laboratory waste generators when preparing waste for disposal and ensuring that guidelines for these procedures have been met when waste is accepted at the disposal site.

Another operational goal, efficient use of sites, is achieved through a combination of disposal facility design and operations. Maximum use of land is accomplished by leaving minimal space between pits and shafts. Operationally reducing waste volume by in-place compaction is accomplished whenever possible to minimize the use of land.

Currently, certain mixed and hazardous wastes must be stored instead of being disposed of because an acceptable ultimate disposal means has not yet been identified. Efforts to develop and implement proper disposal for all such waste is an ultimate goal of the Los Alamos Waste Management program.

Strategy for Completion and Accomplishments

The major efforts of the Los Alamos disposal program for solid radioactive low-level waste will be to continue efficient and effective operation and maintenance of the active disposal areas for radioactive waste. Waste disposal operations will be managed so as to meet all federal government criteria and regulations for a burial site. Considerable effort and emphasis will continue to be placed upon implementing the requirements of the revised DOE Order 5820.2A,as identified in the Implementation Plan.

A major continuing effort in FY 1990-1991, which is GPP funded, is the expansion of the active portion or the Area G burial site. Site expansion tasks will include fencing, relocating, and expanding the office and support facilities for radiation surveillance, expanding the site utilities,

and excavating and removing archeological sites. In order to ensure compliance with the new DOE 5820.2A requirements, an evaluation of the expanded site area against the requirements for a new disposal site will be completed. Expansion is essential at this time to maintain low-level waste disposal in support of Laboratory operations.

Los Alamos will investigate options in the near-term for offsite disposal of certain hazardous and mixed waste residues. Discussions have been initiated with NTS regarding the possibility of shipping some mixed low-level wastes to the NTS. The long-term option of establishing an onsite RCRA-approved mixed and hazardous waste landfill also is being addressed. Line item funding in FY 1992 ($5M) has been requested. Planning for the landfill currently is only preliminary; a site has not been selected. A major potential source of mixed low-level waste, and thus a primary driving force in considering the need for onsite disposal capability, is the potentially very large waste volume originating from ER program activities.

Site Specific Definitions and Assumptions

A disposal operation is defined as the permanent placing of waste, with no future intention of retrieval, in an engineered geologic facility. Included are the shallow land burial and greater confinement burial of low-level radioactive waste; regulated landfill disposal of RCRA hazardous, PCB-contaminated solid, and mixed low-level waste; and deep geologic disposal of TRU waste. It is assumed that such waste disposal at Los Alamos is the least preferred means of dealing with waste; waste minimization and treatment activities must be emphasized to minimize, as much as possible, the volume of waste requiring land disposal.

Major Driving Factors

Immediate Risks

None currently. However, the inventory of stored mixed low-level waste is continuing to grow at a rapid rate. Once the State of New Mexico obtains regulatory authority, inventory controls are possible.

Agreements

None currently. The Laboratory is initiating discussion with NTS regarding the possibility of disposing of certain mixed low-level wastes at the NTS.

Federal and State Laws, Regulations, and DOE Orders

RCRA requires that all hazardous and mixed waste be properly disposed of. Los Alamos ships all hazardous waste to approved offsite treatment/disposal facilities. Discussions have been initiated to determine if mixed waste that is appropriate for land disposal can go to the NTS when approval is received. DOE Order 5820.2A requires that radioactive and mixed waste be properly disposed of in appropriate facilities. A requirement of DOE 5820.2A that has a significant potential effect on disposal operations at Los Alamos is the prohibition of waste burial in cardboard boxes. Because Los Alamos has been self-contained, disposing only of onsite generated

wastes, most waste historically has been and still is packaged in cardboard boxes. Evaluating alternatives to this packaging has begun.

Status

Proactive Approaches

Discussions have been initiated with NTS regarding mixed waste disposal. Planning and design work have been initiated for the required expansion of Area G.

Major Constraints and Uncertainties

Currently no disposal site has been identified for low-level mixed and certain hazardous wastes.

A recent question has arisen in regard to the need for updated NEPA documentation needed to proceed with the planned expansion of the Area G low-level waste disposal site. The current expansion is within the area originally identified in 1957. Use of this area was addressed in the 1979 Los Alamos Environmental Impact Statement. The applicability of an EIS that is over five years old, however, has been questioned.

Finally, uncertainties exist with respect to the opportunity for Los Alamos to initiate shipments of TRU waste to WIPP, the ability of a transport system that can handle Pu-238 TRU waste, and the opening of the WIPP facility.

Major Resolution Efforts

Los Alamos is initiating discussions with NTS and is in preliminary planning stages of developing an onsite RCRA landfill for mixed low-level and certain hazardous wastes. Los Alamos will address the above NEPA question on expanding the onsite low-level disposal site to DOE-HQ (EH-25) in the immediate future. Los Alamos is continuing to work closely with WIPP personnel to accomplish testing that will support shipping all TRU wastes to WIPP in TRUPACT.

Summary

The summary tables that follow provide schedules, priorities, and funding.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: DISPOSAL

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
351020005	3069	DISPOSAL: TA-54 AREA G EXPANSION	WM	D	1	39GF7301F	39GF01	950	575	375	0	0	0	0	0
351020003	3071	DISPOSAL/RADIOLOGICAL PERFORMANCE ASSESS-LLW DISP	WM	D	1	GF730198	GF01	0	0	212	213	213	114	114	114
351020002	3074	LOW LEVEL SOLID DISPOSAL	WM	D	1	GF730198	GF01	0	939	1046	1117	1142	1343	1401	1455
351020001	3056	ASBESTOS & PCB DISPOSAL	WM	D	1	35GF7301F GF730298	35GF01 CH	0	425	591	715	772	698	826	902
* Subsubtotal *						35GF7302F	35GB0103	950	1939	2224	2045	2127	2155	2341	2471
* PRIORITY: 3															
351020006	3068	DISPOSAL: RCRA LANDFILL - CONSTRUCTION	WM	D	3	39GF7302F	39GB0103	5000	0	0	0	1000	2000	2000	0
351020007	3262	SANITARY LANDFILL	WM	D	3	39GF7302F	39GB0103	1500	0	0	0	0	0	0	1500
351020008	3263	RCRA ACTIVE FIRING SITES	WM	D	3	GF730298	CH	732	0	0	0	366	366	0	0
351020004	3081	RCRA LANDFILL OPERATIONS	WM	D	3	GF730298	GB0103	0	0	0	0	0	0	0	716
* Subsubtotal *								7232	0	0	0	1366	2366	2000	2216
** Subtotal **								8182	1939	2224	2045	3493	4521	4341	4687

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PREDECISIONAL DRAFT

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal (Base)

5a. PROGRAM B&R CODE:

OPER:GF-73-02-98

CE: 35-GF-73-02-F

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-GB-01-03

CONST: 39-

6. IDENTIFICATION NO: AL-3056-01/06-30

7. ACTIVITY NO: 3.5.1.02.0001 03

8. ACTIVITY TITLE: Asbestos and PCB Disposal

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: TSCA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	425	491	565	622	623	751	827
Capital							
Construction							
Equipment		100	150	150	75	75	75
GPP							
Total	425	591	715	772	698	826	902
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Asbestos waste that is generated at the Laboratory from decommissioning activity is permitted through the State of New Mexico and land disposed onsite. PCB-laden oil is shipped offsite for treatment through incineration.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels. Growth is projected based on anticipation of increased stringency of regulations and increased volume of asbestos resulting from D&D activities.

18. PRIORITY RATIONALE:

This activity is ongoing in an active facility. If the disposal activities are interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from improperly handled asbestos and PCBs and potential contamination of the environment from the improper disposition of these wastes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing/high.

20. ACCOMPLISHMENTS TO DATE:

Asbestos wastes are packaged in plastic bags or plastic lined cardboard boxes. They are collected and transported to Area G or J for disposal. Oil is used throughout the Lab in items ranging in size from several thousand gallon size transformers to several liter size pumps. Some of the oil is PCB-contaminated. Depending on the level of PCBs present in waste oil, different disposal locations are used. Oil free of PCBs (<5 ppm) is stored for offsite incineration as a waste fuel. Oil with PCB levels between 5 and 50 PPM is sent offsite for incineration. Oil with PCB levels greater than 500 ppm is stored at TA-21-61 until it can be shipped to an approved incineration facility. All soil, equipment, and other solid materials contaminated with PCB oil are disposed of at Area G.

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-01-98

CE: 35-GF-73-01-F

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01-02-06-0

CE: 35-GF-01-02-06-0

CONST: 39-

6. IDENTIFICATION NO: AL-3074-01/06-30

7. ACTIVITY NO: 3.5.1.02.0002 09

8. ACTIVITY TITLE: Low-Level Solid Disposal

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	864	946	992	1042	1093	1151	1205
Capital							
Construction							
Equipment	75	100	125	100	250	250	250
GPP							
Total	939	1046	1117	1142	1343	1401	1455
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The volume of low-level waste to be buried is estimated to range between 4,000 and 6,000 m^3/yr. Several D&D projects are currently identified. Additional projects could result in a significant increase in waste disposal volumes, although such increases could be substantially offset by waste treatment and minimization program efforts. Included in the Los Alamos waste burial operations are the excavation of burial pits and shaft, waste acceptance, safe and proper disposal of waste into these facilities, and backfill operations. All low-level waste disposal by shallow land burial is conducted at the LANL Area G site. Only Los Alamos-generated wastes are disposed.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

Priority 1 is assigned as proper disposal of low-level waste must continue to ensure environmental protection and worker protection. This activity is ongoing in an active facility. If the disposal activities are interrupted, near term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from the improper disposal of low-level radioactive waste and potential contamination of the environment from the inability to properly dispose of these wastes.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing/high.

20. ACCOMPLISHMENTS TO DATE:

Most low-level waste generated at the Lab is buried in large pits ranging in size from 120-180 m (400-600 ft) long, and 8-3 m (26-100 ft) wide, and 8-14 m (26-46 ft) deep. To provide better isolation following burial and to increase worker safety, certain Los Alamos wastes are buried in augered shafts measuring 0.3-1.8 m (1-6 ft) in diameter and up to 20 m deep (65 ft). Although most shafts are unlined, a few are lined with concrete or metal for additional containment. To prevent possible contact between buried waste and perched water that exists in alluvial material in the floors of adjacent canyon floor, no burial facilities maybe deeper than the adjacent canyon floor, which is 23 m (75 ft) deep. Both pits and shafts are located no closer than 15 m (50 ft) to a canyon wall, and all topsoil is removed and stockpiled for future site revegetation. Pits and shafts are filled to a level 1 m (3 ft) below the

spill point, the lowest point on the facility rim, to ensure complete containment of waste by undisturbed tuff. Pits are then covered with tuff and a layer of topsoil and are revegetated. Shafts are capped with concrete the entire final meter. During FY 89, Pit 30 was excavated and approved for use. This pit measured approximately 24.5 m (80.4 ft) wide, 132.6 m (435.1 ft) long, and 12.5 m (41 ft) deep.

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-01-F

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-01-03

6. IDENTIFICATION NO: AL-3069-01/06-30

7. ACTIVITY NO: 3.5.1.02.0005 31

8. ACTIVITY TITLE: Disposal—TA-54 Area G Expansion

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment							
GPP	575	375					
Total	575	375					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $950

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Expansion of the existing Area G, TA-54, the Lab radioactive solid waste burial/storage site, will include the installation of approximately 6,300 linear ft of 8 ft chainlink security fencing having double outriggers and concertina "razor" wire on top, the relocation and expansion of an existing transportable office facility, utilities modifications, and other modifications to accommodate operations within the expanded waste disposal area. Also included is the excavation of archaeological sites.

Area G at TA-54 has been the primary Lab radioactive solid waste disposal/storage area since the late 1950s. The currently fenced portion of this area on Mesita del Buey currently has space remaining for burial of Lab-generated low-level waste to continue operations approximately 5 years. Thus expansion of Area G is required for support of overall Lab operations. This expansion will provide space for another approximately 15 years of site operations. Further future expansion still is possible. If not funded, the Lab will not have burial space available in the future for support operations.

16. MILESTONE SCHEDULE (by fiscal year):

Start construction	1989
End construction	1990
Start operations	1991

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on completed preconceptual engineering design.

18. PRIORITY RATIONALE:

The expansion is required to maintain the base ongoing operations. Interruption of proper burial operations can result in a substantially increased risk of environmental impact and employee exposure to radioactive contaminants through aboveground accumulation of waste.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Implementation/high.

20. ACCOMPLISHMENTS TO DATE:

Design initiated/near completion.

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ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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ALBUQUERQUE OPERATIONS OFFICE
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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal

5a. PROGRAM B&R CODE:

OPER: GF-73-01-98

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3071-01/ 06-30

7. ACTIVITY NO: 3.5.1.02.0003 16

8. ACTIVITY TITLE: Disposal—Radiological Performance Assessment for LLW Disposal

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		212	213	213	114	114	114
Capital:							
Construction							
Equipment							
GPP							
Total		212	213	213	114	114	114
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

No performance assessment meeting the requirements of the order exists for the disposal site. The Laboratory will prepare a performance assessment for the disposal site. Preparing the performance assessment is divided into three phases. Phase 1, developing appropriate scenarios, data bases, and simulations models, will be completed in 1990. Phase 2, performing the screening of the second- and third-level simulations, will be completed by August 1991. Phase 3, completing the performance assessment, will be done by November 1991. When the assessment is completed, the performance assessment will be maintained on an ongoing basis.

16. MILESTONE SCHEDULE (by fiscal year):

Start assessment	FY 90
Complete assessment	FY 91-92
Implement recommendations and maintain assessment	FY 93-95

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support level.

18. PRIORITY RATIONALE:

This activity is ongoing at an active site; compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptional design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

N/A

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal

5a. PROGRAM B&R CODE:

OPER: GF-73-02-98

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GB-01-03

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3081-01/06-30

7. ACTIVITY NO: 3.5.1.02.0004 17

8. ACTIVITY TITLE: RCRA Landfill Operations

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA and DOE 5400.3, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							716
Capital:							
Construction							
Equipment							
GPP							
Total							716
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

It is anticipated that a permitted RCRA landfill will be operational in FY95. The cost associated with the landfill is for operation of the facility.

16. MILESTONE SCHEDULE (by fiscal year):

Operations

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates based on best professional judgment of staff.

18. PRIORITY RATIONALE:

Anticipated compliance need for current DOE 5400.3, DOE 5820.2A and RCRA.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptional design—low level of confidence.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-F

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01

6. IDENTIFICATION NO: AL-3068-01/06-30

7. ACTIVITY NO: 3.5.1.02.0006 36

8. ACTIVITY TITLE: Disposal: RCRA Landfill—Construction

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A, DOE 5400.3

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction				1000	2000	2000	
Equipment							
GPP							
Total				1000	2000	2000	
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $5,000

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

This project would provide a RCRA-standard landfill at TA-54 near Area L. Presently, the Lab, which generates 4,000 cubic feet of solid RCRA-type waste each year, has no hazardous waste landfill. The proposed landfill provides a disposal option for hazardous and mixed waste that is consistent with the Lab's policy of developing onsite disposal options for wastes generated locally.

16. MILESTONE SCHEDULE (by fiscal year):

Initiate and complete design	1992
Start and complete construction	1993

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (weapons)

18. PRIORITY RATIONALE:

Compliance with DOE 5400.3 and 5820.2A, state and EPA current regulations, and ensurance of continued ability to properly dispose of hazardous waste.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design—low level of confidence.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES: N/A

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Disposal

5a. PROGRAM B&R CODE:

OPER:

CE: 35-

CONST: 39-GF-73-02-F

5b. OLD B&R CODE:

OPER:

CE: 35-

CONST: 39-GB-01-03

6. IDENTIFICATION NO: AL-3262-01/06-30

7. ACTIVITY NO: 3.5.1.02.0007

8. ACTIVITY TITLE: Sanitary Landfill

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, NMM Solid Waste Regs., DOE 5400.1

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							1500
Equipment							
GPP							
Total							1500
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,500K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

This project is for development of a new landfill for nonhazardous domestic solid waste. The existing landfill for Los Alamos County and Los Alamos National Laboratory is located on DOE property and has a limited amount of space available. A study has been initiated by the Lab to select a new landfill site. Permitting work and the environmental review process for locating a new landfill is expected to take from 3 to 5 years.

16. MILESTONE SCHEDULE (by fiscal year):

Prepare conceptual design report	FY 1995
Prepare Title I and II engineering designs	FY 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (Weapons)

18. PRIORITY RATIONALE:

Ensure technical compliance with existing regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium—Conceptual design stage.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Disposal
5a. PROGRAM B&R CODE:
   OPER:GF-73-02-98
   CE: 35-
   CONST: 39-
5b. OLD B&R CODE:
   OPER: OVERHEAD
   CE: 35-
   CONST: 39-
6. IDENTIFICATION NO: AL-3263-01/06-30
7. ACTIVITY NO: 3.5.1.02.0008
8. ACTIVITY TITLE: RCRA Active Firing Sites
9. CATEGORY: CA: ER: WM: X
10. PRIORITY: 3
11. APPLICABLE REQUIREMENTS: RCRA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating				366	366		
Capital:							
Construction							
Equipment							
GPP							
Total				366	366		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $732K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

There are approximately 34 active firing sites at the Laboratory where experimental detonations are conducted. These firing sites could be required to meet the standards of a hazardous waste disposal site by virtue of HE and other waste scattered around the detonation area. If these requirements are imposed, closure plans would need to be prepared for each site. In addition, site monitoring for soil and water contamination would be conducted and run-on/off control structures would be constructed. The cost estimates include the costs of chemical analyses.

16. MILESTONE SCHEDULE (by fiscal year):

Write closure plans, conduct monitoring/sample analysis, and install run-on/off control on 17 sites if they become subject to RCRA	FY 1992
Write closure plans, conduct monitoring/sample analysis, and install run-on/off control on 17 sites if they become subject to RCRA	FY 1993

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (weapons)

18. PRIORITY RATIONALE:

Anticipated technical compliance with current regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Low—Preconceptual design equivalent.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Predecisional Draft

U.S. Department of Energy
Albuquerque Operations Office

Environmental Restoration and Waste Management

Five-Year Plan

Volume 4
Waste Management Operations

Continuity of Operations
Los Alamos National Laboratory

Predecisional Draft, Rev. 1

3.6.1.2 Continuity of Operations—Los Alamos National Laboratory

Overview of Program: Goals, Objectives, and Strategy

At Los Alamos, continuity of operations in waste management operations includes environmental monitoring and surveillance, record keeping, certification oversight of TRU and low-level/mixed low-level waste, facilities maintenance and inspection, long-range planning, permitting/delisting regulatory activities, analytical chemistry support, training, quality assurance, and other miscellaneous supportive functions.

Numerous new and expanded administrative and policy initiatives are addressed in the DOE 5820.2A Implementation Plan. Los Alamos will implement new requirements to expand waste characterization; implement detailed waste acceptance criteria for each treatment, storage, and disposal operation; and develop appropriate QA covering all waste management operations. RCRA permitting of current hazardous waste facilities is progressing. Appropriate permitting of all mixed waste facilities will be initiated as soon as the State of New Mexico acquires mixed waste authority. All future/planned facilities will also be properly permitted. Waste management records will ensure adequate tracking of wastes from generation to ultimate disposal. Surveillance, maintenance, and inspection activities will ensure containment of all hazardous materials and overall environmental protection. Again, required records will be maintained and quality assurance applied. To properly and safely accomplish their assigned functions, all waste management operations personnel will be trained/certified as required by federal regulations and/or DOE orders.

Strategy for Completion and Accomplishments

WIPP certification for the majority of Los Alamos TRU waste has been fully implemented; the program is regularly audited for compliance. To ensure waste compliance with all treatment/storage/disposal waste acceptance criteria, a similar certification program for low-level and low-level mixed wastes will be implemented beginning in FY 1990.

To demonstrate compliance with the performance objectives of DOE 5820.2A, the Laboratory will begin an effort to accomplish a radiological performance assessment for the Laboratory disposal operations. A related task will be to accomplish a performance assessment of the waste management systems to evaluate the effectiveness of all waste management practices. Resulting from these assessments will be the identification of the waste acceptance requirements for each waste management operation. The assessments are scheduled for initial completion by FY 1991.

Enhanced waste characterization, especially of the hazardous constituents of mixed waste, is another activity currently being implemented that relates closely to developing and implementing waste acceptance and certification. Methodologies and techniques to expand the characterization of radionuclide and chemical content of wastes are being studied.

Although the site has operated since 1958, a formal Safety Analysis Report has never been documented for the TA-54, Area G radioactive waste storage/disposal site. The current plans are to complete the required SAR in 1989.

The Environmental Surveillance Group (HSE-8) maintains a comprehensive environmental monitoring program on the active and inactive radioactive waste storage and disposal areas. This program includes regularly sampling a variety of environmental media: air, soil and sediments, surface and ground waters, and vegetation. Expanded monitoring will now be identified and implemented to provide verification data required for the performance assessment models.

Developing a QA program for low-level and mixed low-level waste will follow the schedule for completing and implementing the waste certification plan because the two are related.

Current record keeping and waste manifest procedures must be improved to meet the requirements of DOE 5820.2A. Specifically, the quantity of nuclides and chemicals must be added to current mixed waste record keeping; improved tracking of wastes will also be provided.

Site Specific Definitions and Assumptions

Functions included in continuity of operations are those which do not involve direct handling of wastes but which are essential supportive activities. Included are activities that ensure, verify, and document the acceptability and compliance of all waste management operations, from generating the waste to its ultimate disposal, with all environmental, health, and safety requirements/regulations. Planning and coordinating activities necessary to ensure effective and proper operations are also included. A primary assumption is that waste management functions of treatment, storage, disposal, and minimization cannot be properly completed without the supportive accomplishment of the continuity functions. Most functions identified under continuity of operations are specific regulatory requirements.

Major Driving Factors

Immediate Risks

None currently.

Agreements

None currently. An agreement with NTS for disposing of mixed low-level waste will require full implementation of characterization, certification, and quality assurance.

Federal and State Laws, Regulations, and DOE Orders

Radiological and system performance assessments, waste acceptance criteria, environmental surveillance, inspections and maintenance, training, record keeping, and quality assurance are requirements of DOE 5820.2A and have been addressed in the recently submitted Implementation Plan. The EPA RCRA regulations also require waste characterization, inspections and maintenance, training, records, and quality assurance as applied to hazardous and mixed wastes. These RCRA requirements all must be addressed in the Part B permitting process.

Status

Proactive Approaches

With the assistance of an outside contractor, the Laboratory currently is initiating a long-range planning effort for low-level and mixed low-level wastes. In conjunction with the DOE 5820.2A Implementation Plan, this effort is intended to provide an overall plan to ensure compliance with all environmental, health, and safety requirements of waste management operations in a coordinated, effective, and cost-efficient manner.

Major Constraints and Uncertainties

A major current uncertainty is obtaining the necessary funding to develop and implement these expanded waste management operations. The Implementation Plan identifies the requirements for a considerable increase in manpower to accomplish these tasks.

Uncertainties in dealing with the State of New Mexico and how RCRA regulations will apply to mixed waste also could effect the efforts in some task areas. One such example is waste characterization; the extent to which state regulators will accept "knowledge of process" is unknown.

Major Problems and Resolution Efforts

Efforts are being initiated to obtain technical assistance from an outside contractor for developing a posture with the State of New Mexico, when it assumes regulatory authority over mixed wastes, and for initiating the Part A and B permits.

Funding proposals that address many aspects of the above needs have been prepared and submitted to the DOE Defense Waste Operations. Potential funding sources for the balance of the required efforts will continue to be identified and pursued.

Summary

The summary tables that follow provide schedule, priorities, and funding.

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: CONTINUITY OF OPERATIONS

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
** SITE: LANL															
* PRIORITY: 1															
361020016	3287	BIOMONITORING FOR NPDES PERMIT	WM	COO	1	GF730201	CH	1637	0	284	285	285	285	285	213
361020002	3059	CONT. OF OPERATIONS	WM	COO	1	GF730101	GF01	0	2166	2297	2156	2278	2392	2512	2638
361020010	3105	WASTE MANAGEMENT TREATMENT/GAS CYLINDERS	WM	COO	1	GF730101	CH	0	275	316	363	399	440	484	532
361020009	3058	CONT. OF OPERATIONS - BASE PROGRAM	WM	COO	1	GF730201	CH	0	674	770	1687	874	1073	1179	1300
						35GF7302A	35GB0103								
361020011	3092	CONTINUITY OF OPERATIONS — WASTE GEN TECH SUPPORT	WM	COO	1	GF730201	CH	0	708	878	941	1035	1138	1249	1377
						35GF7302A	35GB0103								
* Subsubtotal *								1637	3823	4545	5432	4971	5328	5709	6060
* PRIORITY: 3															
361020018	3269	GEOTHERMAL SITE CLOSING	WM	COO	3	GF730201	CH	2198	0	71	384	285	1456	0	0
361020017	3268	SEPTIC TANK TRUCK	WM	COO	3	35GF7302A	35GB03	315	0	0	315	0	0	0	0
361020003	3057	CONT OF OPERATIONS/LLW RADIOLOGICAL CHARA. STUDY	WM	COO	3	GF730101	GF01	107	0	107	0	0	0	0	0
361020012	3093	TREATMENT/ALTERNATIVE TREATMENT STUDY-MIXED WASTE	WM	COO	3	GF730101	GF01	107	0	107	0	0	0	0	0
361020013	3095	TREATMENT/COMPACTING REDUCING & STABILIZING LLW	WM	COO	3	GF730101	GF01	107	0	107	0	0	0	0	0
361020014	3085	STORAGE/CONTINGENCY PLAN FOR TRU STORAGE	WM	COO	3	GF730101	GF01	71	0	71	0	0	0	0	0
361020004	3061	CONT. OF OPERATIONS/LLW SYS PERF ASSESSMENT	WM	COO	3	GF730101	GF01	0	0	106	107	71	57	57	57
361020008	3062	CONTINUITY OF OPERATIONS/LOH/MIXED WASTE QA PROG	WM	COO	3	GF730101	GF01	0	0	71	71	71	71	71	71
361020007	3064	CONTINUITY OF OPERATIONS/MIXED WASTE MGMT CERTIF.	WM	COO	3	GF730101	GF01	0	0	71	1024	1025	1025	1025	1025
361020005	3063	CONTINUITY OF OPERATIONS/MIXED LLW ANALYSIS	WM	COO	3	GF730101	GF01	0	0	566	569	569	569	569	569
361020006	3060	CONTINUITY OF OPERATIONS/LLW CERTIFICATION PROGRAM	WM	COO	3	GF730101	GF01	0	0	354	356	356	256	256	256

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

ENVIRONMENTAL REST. & WASTE MGMT.
FUNDING PROFILE SUMMARY
PROGRAM: WASTE MANAGEMENT OPERATIONS
ACTIVITY TYPE: CONTINUITY OF OPERATIONS

ACTIVITY NUMBER	DATA SHT	ACTIVITY TITLE	PROG	ACT TYP	PRI ORI TY	NEW B & R	OLD B & R	TEC/TPC	TOTAL FY89	TOTAL FY90	TOTAL FY91	TOTAL FY92	TOTAL FY93	TOTAL FY94	TOTAL FY95
* Subsubtotal *								2903	0	1631	2826	2377	3434	1978	1978
* PRIORITY: 4															
361020015	3266	ASBESTOS & PCB DISPOSAL	WM	COO	4	QF730201	OH	0	0	0	0	0	731	1165	1456
* Subsubtotal *								0	0	0	0	0	731	1165	1456
** Subtotal **								4540	3823	6176	8258	7348	9493	6852	9494

PREDECISIONAL DRAFT

PREDECISIONAL DRAFT

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U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3085-01/06-30

7. ACTIVITY NO: 3.6.1.02.0014

8. ACTIVITY TITLE: Storage—Contingency Plan for TRU Storage.

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		71					
Capital							
Construction							
Equipment							
GPP							
Total		71					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $71

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

A contingency plan does not now exist.

The Laboratory will write a safety analysis report (SAR) for waste storage and disposal areas and develop a contingency plan after the consequences of potential releases have been analyzed. The SAR will direct the Laboratory to remedial action that can be addressed in the contingency plan. This activity is for the preparation of the plan only.

16. MILESTONE SCHEDULE (by fiscal year):

Complete Plan.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on the best professional judgement of staff and are contained in the Implementation Plan for DOE Order 5820.2A.

18. PRIORITY RATIONALE:

Compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design equivalent. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-02-01

CE: 35-GF-73-02-A

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-GB-01-03

CONST: 39-

6. IDENTIFICATION NO: AL-3058-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0009 05

8. ACTIVITY TITLE: Continuity of Operations—Base Program

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, NMHWA, HSWA, DOE 5820.2A, DOT, DOE 5480.3

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	674	770	887	974	1073	1179	1300
Capital							
Construction							
Equipment			800				
GPP							
Total	674	770	1687	974	1073	1179	1300
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Waste Management personnel support the Laboratory's effort to come into compliance with DOT regulations under the draft of DOE Order 5480.3. Incorporated in this effort is the ongoing evaluation and upgrade of existing modes of waste transport.

General chemical waste management activities are planning, program development, record keeping, training, general permit maintenance, generator education, and professional development.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

These activities are necessary to ensure minimization of risks to workers and the environment and to comply with state and Federal regulations and DOE orders. This activity is ongoing at an active facility. Failure to fund would risk potential adverse impacts on workers and contamination to the environment from all radioactive and hazardous waste handled at the facility.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing/high.

20. ACCOMPLISHMENTS TO DATE:

Maintenance of the waste management program has been achieved. Functions included in continuity of operations are those which do not involve direct handling of wastes but which are essential supportive activities. Included are activities that ensure, verify, and document the acceptability and compliance of all waste management operations, from generating the waste to its ultimate disposal, with all environmental, health, and safety requirements and regulations. Planning and coordinating activities necessary to ensure effective and proper operations are also included. A primary assumption is that waste management functions of treatment, storage, disposal, and minimization cannot be properly completed without the supportive accomplishment of the continuity functions. Most functions identified under continuity of operations are specific regulatory requirements. All onsite transport of radioactive solid, mixed, and hazardous waste for storage is by government truck. Directed by Waste Management personnel or done by the Waste Management personnel themselves, trained waste handlers collect waste on an "on-call" basis from generators and collection areas.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01-03-06-0

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3059-01/06-30

7. ACTIVITY NO: 3.6.1.02.0002 10

8. ACTIVITY TITLE: Continuity of Operations

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5400.3, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	2166	2297	2156	2278	2392	2512	2638
Capital							
Construction							
Equipment							
GPP							
Total	2166	2297	2156	2278	2392	2512	2638
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Mixed Waste Analysis, New Waste; TRU Waste Environmental Monitoring, TRU Waste Records Management, TRU Waste Certification, Low-Level Waste Records Management. Operational tasks necessary to support and maintain ongoing waste treatment, storage, and disposal operations are included in this category. Functions include conduct of performance assessments, disposal site and other waste management facilities operations, inspection and maintenance of all waste management facilities to ensure continuing safe operations, TRU and LLW certification verification, long-range planning, RCRA and other required permitting of operating facilities, deleting of treated mixed waste streams, WIPP transportation (when begun), and interactions with waste generators to minimize the quantity and toxicity of waste generated.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

All of these supporting activities are considered critical to maintaining safety and ensuring environmental protection of current operations in accordance with applicable regulations. As such, Priority 1 is assigned. This activity is ongoing in an active facility. If these inspection, maintenance, and oversight functions are interrupted, near-term adverse impacts could result. The adverse impacts would be increased exposure and potential health risks to workers from the improper treatment, storage, and/or disposal of radioactive waste and potential contamination of the environment from the inability to ensure proper handling of these waste.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Level of confidence is high.

20. ACCOMPLISHMENTS TO DATE:

Functions included in continuity of operations are those which do not involve direct handling of wastes but which are essential supportive activities. Included are activities that ensure, verify, and document the acceptability and compliance of all waste management operations, from generating the waste to its ultimate disposal, with all environmental, health, and safety requirements/regulations. Planning and coordinating activities necessary to ensure effective and proper operations are also included. A primary assumption is that waste management functions of treatment, storage, disposal, and minimization cannot be properly completed without the supportive accomplishment of the continuity functions. Most functions identified under continuity of operations are specific regulatory requirements.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3105-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0010 06

8. ACTIVITY TITLE: Waste Management Treatment--Gas Cylinders

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: DOE 5400.3, DOE 5820.2A, RCRA, TSCA, CAA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	275	316	363	399	440	484	532
Capital							
Construction							
Equipment							
GPP							
Total	275	316	363	399	440	484	532
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The purpose of this program is to provide continuing technical support for activities such as the development, testing, and documentation of a process for the safe handling and disposal of the contents of leaking, unknown, or damaged gas cylinders.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

DWER; Growth is projected based on anticipation of increased stringency of regulations.

18. PRIORITY RATIONALE:

Maintaining continuity of operations is essential to ensuring both regulatory compliance and continuing protection of operating personnel and the environment. This activity is ongoing in an active facility. If the technical support is interrupted, near-term adverse impacts could result from increased exposure and potential health risks to workers from exposure to hazardous gases and potential releases to the environment from such things as leaking gas cylinders.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing. Level of confidence is high.

20. ACCOMPLISHMENTS TO DATE:

LANL project efforts to date (A448) have identified a candidate technology for recontainerization of problem gas cylinder contents, as well as potentially useful gas cylinder management and disposal services under development in the commercial sector. LANL is presently evaluating both technologies to determine which best fits HAZWRAP and DOE needs, both in the near and long term. Before demonstration of those commercial capabilities under development, LANL intends to pursue acquisition (A468) of a modified recontainerization process based on current technology to deal with those cylinders for which handling and treatment options do not currently exist.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

Many DOE contractor sites urgently need a practical method for handling problem gas cylinder disposal, for which directly applicable commercial technology is either currently unavailable or is undergoing development. An RD&D effort is underway to accomplish this—refer to ADS identification numbers AL-4049 and AL-4047 in the LANL RD&D section of the AL Waste Management submission.

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations (Base)

5a. PROGRAM B&R CODE:

OPER: GF-73-02-01

CE: 35-GF-73-02-A

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-GB-01-03

CONST: 39-

6. IDENTIFICATION NO: AL-3092-01/06-30

7. ACTIVITY NO: 3.6.1.02.0011

8. ACTIVITY TITLE: Continuity of Operations—Waste Generators Technical Support

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating	708	818	941	1035	1138	1249	1377
Capital							
Construction							
Equipment		60					
GPP							
Total	708	878	941	1035	1138	1249	1377
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

In 1988 the Lab formed a section in HSE-7 to provide technical support to waste generators with an emphasis on waste minimization. The Generator Interface Section is composed of technical staff members who meet with generating groups and assist them in analyzing their waste generating practices and minimizing the waste generated in their operations. They provide technical and engineering assistance, training and education, and support for temporary storage and disposal of hazardous waste.

16. MILESTONE SCHEDULE (by fiscal year):

Ongoing

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support.

18. PRIORITY RATIONALE:

This activity is ongoing in an active facility. If the technical support for this continuity of operations is interrupted, this could result in near-term adverse impacts, specifically, without technical support in the analysis of waste generating practices and minimization efforts, larger than necessary volumes of waste are generated which increase the risk of exceeding the engineered storage capacity. This would result in the temporary storage of waste in nonbermed areas resulting in an increased risk of an environmental release.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Ongoing/high

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-02-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3266-01/06-30
7. ACTIVITY NO: 3.6.1.02.0015
8. ACTIVITY TITLE: Asbestos and PCB Disposal
9. CATEGORY: CA: ER: WM: X
10. PRIORITY: 4
11. APPLICABLE REQUIREMENTS: CAA, RCRA, TSCA
12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating					731	1165	1456
Capital:							
Construction							
Equipment							
GPP							
Total					731	1165	1456
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

It is anticipated that the requirements for both asbestos and polychlorinated biphenyls (PCB) will increase dramatically in the next 3 to 6 years. Both EPA and the state EID are presently evaluating the need for increased disposal regulations for asbestos and for listing PCB as a hazardous waste under RCRA. These new regulatory requirements will impact LANL administrative and technical management of asbestos and PCB. Specifically, new and expanded record keeping and permitting requirements as well as new land disposal practices will be mandated to meet the new regulations. The cost estimates include the costs of chemical analyses.

16. MILESTONE SCHEDULE (by fiscal year):

New records management system	FY 1993
Implement new land disposal methodology	FY 1994
Continue new land disposal practices	FY 1995

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (Weapons)

18. PRIORITY RATIONALE:

Technical compliance with anticipated regulation.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Medium—Preconceptual design equivalent.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3057-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0003 12

8. ACTIVITY TITLE: Continuity of Operations—LLW Radiological Characterization Study

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A, RCRA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		107					
Capital							
Construction							
Equipment							
GPP							
Total		107					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $107K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Current characterization procedures must be reviewed with improvement in the methods used to determine radionuclide concentrations. If no suitable technology for determining radionuclide levels exists for certain waste streams and if the radionuclide levels for those waste streams do not add significantly to overall source terms, the Laboratory will petition DOE for exemption of those waste streams from characterization. A study of alternatives to current radionuclide characterization procedures will be completed in FY 90. The cost and schedule for implementing changes will be determined by the study and cannot now be estimated.

16. MILESTONE SCHEDULE (by fiscal year):

Start and complete study

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

Compliance with DOE Order 5820.2A

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design equivalent. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3061-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0004 18

8. ACTIVITY TITLE: Continuity of Operations—LLW Systems Performance Assessment

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		106	107	71	57	57	57
Capital:							
Construction							
Equipment							
GPP							
Total		106	107	71	57	57	57
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The Laboratory does not have a systems performance assessment for low-level waste that meets the requirements of the order. The Laboratory is preparing a long-range plan addressing all waste-handling activities, which include some of the elements of the systems assessment. The long-range plan will identify all regulations and orders applying to waste handling and will assess both technical and regulatory deficiencies. A systems performance assessment will be prepared. When the assessment is completed, it will be maintained on an ongoing basis.

16. MILESTONE SCHEDULE (by fiscal year):

Start assessment	FY 90
Complete assessment	FY 91-92
Implement recommendations and maintain assessment	FY 93-95

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

Compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3063-01/06-30

7. ACTIVITY NO: 3.6.1.02.0005 19

8. ACTIVITY TITLE: Continuity of Operations—Mixed LLW Analysis

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		566	569	569	569	569	569
Capital:							
Construction							
Equipment			-				
GPP							
Total		566	569	569	569	569	569
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

RCRA regulations and DOE Order 5820.2A require that the hazardous component of mixed LLW waste be characterized to allow treatment, storage, and disposal in accordance with RCRA regulations. DOE Order 5820.2A requires improved characterization of the radionuclide component of LLW. Sampling and analytical programs must be established and maintained to meet these requirements.

16. MILESTONE SCHEDULE (by fiscal year):

Conduct analyses FY 90-95

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

The project promotes compliance with state and federal regulations and DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3060-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0006 20

8. ACTIVITY TITLE: Continuity of Operations—LLW Certification Program

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		354	356	356	256	256	256
Capital:							
Construction							
Equipment							
GPP							
Total		354	356	356	256	256	256
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

DOE Order 5820.2A requires that generators of LLW implement a LLW certification program to provide assurance that the waste acceptance criteria for any LLW treatment, storage, or disposal used by the generator are met. Current waste acceptance criteria do not meet all the requirements of DOE 5820.2A. The LLW Certification Program will improve the waste criteria and establish and maintain a LLW implementation program to meet 5820.2A. Failure to fund the program will result in a failure to comply with the Order.

16. MILESTONE SCHEDULE (by fiscal year):

Develop program	FY 90
Implement/refine program	FY 91-93
Maintain program	FY 94-95

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

The project promotes compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3064-01/06-30

7. ACTIVITY NO: 3.6.1.02.0007 21

8. ACTIVITY TITLE: Continuity of Operations—Mixed Waste Management Certification

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: RCRA, 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		71	1024	1025	1025	1025	1025
Capital:							
Construction							
Equipment							
GPP							
Total		71	1024	1025	1025	1025	1025
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

To meet RCRA regulations and DOE Order 5820.2A, a certification program must be established and maintained to ensure proper and complete segregation of hazardous and mixed waste and mixed LLW from both noncontaminated waste and other LLW, and to ensure proper handling, sampling, packaging, and documentation of mixed LLW. Failure to fund the mixed waste certification program will result in failure to comply with RCRA regulations and DOE 5820.2A.

16. MILESTONE SCHEDULE (by fiscal year):

Develop program	FY 90
Implement program	FY 91
Implement/refine program	FY 92-95

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

The project promotes compliance with state and federal regulations and DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3062-01/ 06-30

7. ACTIVITY NO: 3.6.1.02.0008 22

8. ACTIVITY TITLE: Continuity of Operations—Low/Mixed Waste QA Program

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A, DOE 5700.6B

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		71	71	71	71	71	71
Capital:							
Construction							
Equipment							
GPP							
Total		71	71	71	71	71	71
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: Ongoing

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

DOE Order 5820.2A requires that low/mixed waste operations and disposal practices be conducted consistent with DOE 5700.6B and in accordance with the applicable requirements of American National Standards Institute, American Society of Mechanical Engineers, Nuclear Quality Assurance, and other appropriate national consensus standards. This program establishes and maintains a quality assurance program that meets the DOE Order.

16. MILESTONE SCHEDULE (by fiscal year):

Develop QA program	FY 90
Maintain program	FY 91-95

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on an assessment of needs and are consistent with previous internal Laboratory and/or DOE/DWER support levels.

18. PRIORITY RATIONALE:

The project is required for compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

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ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3093-01/06-30

7. ACTIVITY NO: 3.6.1.02.0012 13

8. ACTIVITY TITLE: Treatment—Alternative Treatment Study for Mixed Waste

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A, RCRA

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		107					
Capital							
Construction							
Equipment							
GPP							
Total		107					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $107K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

Alternative Treatment Study for Mixed Waste. Treatment approaches and facilities must be developed for lithium hydride and uranium chips and turnings. This activity is to undertake a study of the characteristics of these wastes and to determine an appropriate treatment methodology. Implementation of the results of this study will be determined at the completion. Further costs are not known at this time.

16. MILESTONE SCHEDULE (by fiscal year):

Start and completion of study FY 90

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on the best profession and are contained in the Implementation Plan for DOE Order 5820.2A.

18. PRIORITY RATIONALE:

Compliance with existing EPA and state regulations and DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design equivalent. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
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ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP
2. OPERATIONS OFFICE: AL
3. INSTALLATION: LANL
4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-01-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: GF-01

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3095-01/06-30
7. ACTIVITY NO: 3.6.1.02.0013 14

8. ACTIVITY TITLE: Compacting Reducing Stabilizing LLW.

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		107					
Capital							
Construction							
Equipment							
GPP							
Total		107					
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $107K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

The Laboratory will undertake a study of alternative technologies for compaction, size reduction, and stabilization of wastes received in cardboard boxes and oversized wastes that can not be incinerated. Based on the outcome of the study, the Laboratory will pursue a demonstrated technology that meets the requirements of the order. Further costs and schedules are unknown at this time because they will be determined by the study.

16. MILESTONE SCHEDULE (by fiscal year):

Conduct and complete study FY 90

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Cost estimates are based on the best professional judgment of staff and are contained in the Implementation Plan for DOE Order 5820.2A.

18. PRIORITY RATIONALE:

Compliance with DOE Order 5820.2A.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design equivalent. Confidence level is medium.

20. ACCOMPLISHMENTS TO DATE:

N/A

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVE:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

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ALBUQUERQUE OPERATIONS OFFICE
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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-02-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3267-01/06-30

7. ACTIVITY NO: 3.6.1.02.0016

8. ACTIVITY TITLE: Biomonitoring for NPDES Permit

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 1

11. APPLICABLE REQUIREMENTS: CWA, DOE 5820.2A

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		284	285	285	285	285	213
Capital:							
Construction							
Equipment							
GPP							
Total		284	285	285	285	285	213
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $1,637K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

NPDES biomonitoring will be done in FY 1990 to support the NPDES permit, as required by the EPA, and implementation of corrective actions that will mediate chronic and acute toxicity problems with NPDES waste streams, which will be discovered during the monitoring process. This project will eliminate the need for continous biomonitoring requirements in future years (this effort would be beyond the normal base program).

16. MILESTONE SCHEDULE (by fiscal year):

Anticipated activities	FY 1990
Complete monitoring	FY 1991
Corrective actions	FY 1992-95

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Lab indirect funding.

18. PRIORITY RATIONALE:

To obtain technical compliance with anticipated EPA regulations. This is an ongoing activity at an active site. Actions are being taken to mediate chronic and acute toxicity in NPDES waste streams. Actions are also to ensure technical compliance with an anticipated EPA regulation.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Conceptual design. Level of confidence is medium.

20. ACCOMPLISHMENTS TO DATE:

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ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

None.

LONG RANGE:

None.

22. RD&D DESCRIPTION:

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ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER:

CE: 35-GF-73-02-A

CONST: 39-

5b. OLD B&R CODE:

OPER:

CE: Overhead

CONST: 39-

6. IDENTIFICATION NO: AL-3268-01/06-30

7. ACTIVITY NO: 3.6.1.02.0017

8. ACTIVITY TITLE: Septic Tank Truck

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: CWA, EO 12088

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating							
Capital:							
Construction							
Equipment			315				
GPP							
Total			315				
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $315K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

A new vacumm truck is needed to perform routine maintenance on sanitary septic tanks, cooling tower basins, and other liquid waste sumps throughout the Laboratory. Presently, there are approximately 60 septic tanks, 20 cooling towers, and 10 liquid waste sumps that must be pumped on a routine frequency to maintain proper operation and compliance with federal and state environmental regulations. The existing vacuum truck is old and overworked, and the Laboratory does not have a backup truck in case of mechanical failure. A new vacuum truck would allow adequate maintenance of tanks and basins and would provide reliability because the old truck would be available as a backup.

16. MILESTONE SCHEDULE (by fiscal year):

Purchase pumping truck FY 1992

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Landlord (weapons)

18. PRIORITY RATIONALE:

Ensure technical compliance with existing regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Equipment purchasing. Confidence level is high.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION:

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ACTIVITY DATA SHEET

1. HQ ORGANIZATION: DP

2. OPERATIONS OFFICE: AL

3. INSTALLATION: LANL

4. FACILITY/WASTE AREA GROUPING: Continuity of Operations

5a. PROGRAM B&R CODE:

OPER: GF-73-02-01

CE: 35-

CONST: 39-

5b. OLD B&R CODE:

OPER: Overhead

CE: 35-

CONST: 39-

6. IDENTIFICATION NO: AL-3269-01/06-30

7. ACTIVITY NO: 3.6.1.02.0018

8. ACTIVITY TITLE: Geothermal Site Closure

9. CATEGORY: CA: ER: WM: X

10. PRIORITY: 3

11. APPLICABLE REQUIREMENTS: NMWQC Regs., USFS Land Use Permit

12. FUNDING SUMMARY: Budget Authority (in thousands)

FISCAL YEARS

	1989 Approp.	1990 Amended Pres. Budget	1991	1992	1993	1994	1995
Operating		71	384	285	1456		
Capital:							
Construction							
Equipment							
GPP							
Total		71	384	285	1456		
RD&D (Non add)							
Operating							
Capital:							
Construction							
Equipment							
GPP							
Total							

U.S. DEPARTMENT OF ENERGY
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ACTIVITY DATA SHEET

13. ACTIVITY TEC/TPC: $2,196K

14. KEY WORDS:

15. ACTIVITY DESCRIPTION:

This project would entail cleaning out the earthen water storage pond at the Fenton Hill Geothermal Site, installing a seepage detection system in the pond, and providing a pond liner to prevent migration of the pond contents into the underlying aquifer. These tasks are listed as DOE commitments in the Ground Water Discharge Plan (31) for Fenton Hill that has been approved by the state regulatory agency, NM Oil Conservation Division. The EE-1 pond is used for experimental water storage and storage of drilling fluids. The project would also provide for site remedial work at the cessation of operations as required by the US Forest Service's land use permit.

16. MILESTONE SCHEDULE (by fiscal year):

Perform conceptual design	FY 1990
Prepare engineering design and construct	FY 1991
Design and construct facilities and perform remedial closure work	FY 1993

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ACTIVITY DATA SHEET

17. FUNDING BASIS (by fiscal year):

Compliance projects, anticipated funding lab indirect (overhead).

18. PRIORITY RATIONALE:

This activity is to ensure continued technical compliance with existing regulations.

19. LEVEL OF CONFIDENCE AND RATIONALE:

Preconceptual design. Confidence level is low.

20. ACCOMPLISHMENTS TO DATE:

U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT FIVE-YEAR PLAN

ACTIVITY DATA SHEET

21. ACTIVITY ALTERNATIVES:

SHORT RANGE:

LONG RANGE:

22. RD&D DESCRIPTION: