

SANDIA NATIONAL LABORATORIES

HAZARDOUS WASTE PERMIT

OCTOBER 2009

**HAZARDOUS WASTE PERMIT
EPA ID No. NM5890110518**

to

**UNITED STATES DEPARTMENT OF ENERGY
AND SANDIA CORPORATION**

for

SANDIA NATIONAL LABORATORIES

Located in

BERNALLILO COUNTY, NEW MEXICO

October 2009

Prepared by the

**New Mexico Environment Department
Hazardous Waste Bureau
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TABLE OF CONTENTS

PERMIT PART 1: GENERAL PERMIT CONDITIONS.....	1
1.0 GENERAL.....	1
1.1. Legal Authority	1
1.2. Permit Construction	2
1.3. Severability	2
1.4. Definitions.....	2
1.5. Effect of Permit	3
1.5.1. Compliance with Permit (Permit Shield).....	4
1.6. Permit Actions.....	4
1.6.1. Term of Permit.....	4
1.6.2. Permit Modification, Suspension, Revocation, and Termination.....	4
1.6.2.1. <i>Permit Modification</i>	4
1.6.2.2. <i>Permit Modification at the Request of the Permittees</i>	5
1.6.2.3. <i>Permit Suspension, Revocation, and Termination</i>	5
1.6.3. Permit Renewal/Duty to Reapply	5
1.6.4. Continuation of Expiring Permit.....	5
1.6.5. Transfer of Permit.....	5
1.6.6. Permit Review.....	5
1.7. Points of Contact During Post-Closure Care	6
1.8. Duties and Requirements	6
1.8.1. Duty to Comply.....	6
1.8.2. Need to Halt or Reduce Activity Not a Defense.....	7
1.8.3. Duty to Mitigate.....	7
1.8.4. Proper Operation and Maintenance	7
1.8.5. Duty to Provide Information.....	7
1.8.6. Inspection and Entry	7
1.8.7. Monitoring and Records	8
1.8.8. Reporting Planned Changes.....	8
1.8.9. Reporting Anticipated Noncompliance	8
1.8.10. Certification of Construction or Modification	9
1.8.11. Twenty-Four Hour and Subsequent Reporting.....	9
1.8.11.1. <i>Oral Report</i>	9
1.8.11.2. <i>Written Report</i>	9
1.8.11.3. <i>Reports Required by Contingency Plan</i>	10
1.8.12. Admissibility of Data.....	10
1.8.13. Other Noncompliance	10
1.8.14. Other Information	10
1.9. Reports, Notifications, and Information Submittals	11
1.9.1. Information Submittal.....	11
1.9.2. Incorporation of Plans and Schedules into the Permit.....	11
1.10. Confidential Information	11

TABLE OF CONTENTS, CONTINUED

PERMIT PART 2: GENERAL FACILITY CONDITIONS	12
2.0 INTRODUCTION.....	12
2.1. Hazardous Waste Prohibition.....	12
2.2. Security	12
2.3. General Inspection Requirements.....	12
2.4. Preparedness and Prevention	12
2.4.1. Required Equipment	12
2.4.2. Testing and Maintenance of Equipment	12
2.4.3. Access to Communications or Alarm System	12
2.4.4. Arrangements with Local Authorities.....	12
2.5. Contingency Plan	13
2.5.1. Implementation of Contingency Plan	13
2.5.2. Copies of the Contingency Plan.....	13
2.5.3. Amendments to Contingency Plan.....	13
2.5.4. Emergency Coordinator	13
2.6. Record Keeping and Reporting	14
2.6.1. Data Retention	14
2.6.2. Operating Record.....	14
2.6.3. Annual Report.....	14
2.6.4. Personnel and Telephone Number Changes	14
2.6.5. Post-Closure Notices.....	14
2.6.6. Certification of Completion of Post-Closure Care	15
2.7. Cost Estimate and Financial Assurance for Facility Post-Closure Care.....	15
2.8. Financial Responsibility	15
2.9. Documents to be Maintained at the Facility.....	15
PERMIT PART 3: POST-CLOSURE CARE REQUIREMENTS FOR THE CWL.....	17
3.0 GENERAL.....	17
3.1. Residual Soil Contamination at Risk-Based Levels.....	18
3.2. Post-Closure Care Procedures and Use of Property	24
3.2.1. Duration of Post-Closure Care.....	24
3.2.2. Groundwater Monitoring System	24
3.2.3. Special Post-Closure Requirements for Landfills.....	24
3.2.4. Security Requirements	24
3.2.5. Future Land Use Requirements	25
3.3. Inspection.....	25
3.4. Groundwater Sampling and Analysis Plan	25
3.5. Soil Gas Sampling and Analysis	25
3.6. Personnel Training for Post-Closure Care Period.....	25
3.7. Post-Closure Permit Modifications	25
3.8. References.....	25

TABLE OF CONTENTS, CONTINUED

PERMIT ATTACHMENT 1: POST-CLOSURE CARE PLAN FOR THE CWL	26
1.0 INTRODUCTION.....	26
1.1. General Description of the Facility	26
1.2. Location, Conditions, and Description of the CWL	26
1.2.1. Location and General Description	26
1.2.2. Current Landfill Conditions.....	27
1.2.3. Description of Cover Installation.....	27
1.2.4. Seismic Considerations.....	27
1.2.5. Floodplain	27
1.3. Description of the Final Cover.....	28
1.3.1. Surface Topsoil Layer.....	28
1.3.2. Native Soil Layer	29
1.3.3. Surface Drainage Controls.....	29
1.4. Description of the Compliance Monitoring System.....	29
1.4.1. Groundwater Monitoring System	29
1.4.2. Soil-Gas Monitoring System	33
1.5. Description of Storm-Water Diversion Structures.....	33
1.6. Description of Security Fences.....	34
1.7. Post-Closure Care	34
1.8. Monitoring Process.....	34
1.8.1. Groundwater Monitoring Process.....	35
1.8.1.1. Frequency	35
1.8.1.2. Assessment	36
1.8.2. Soil-Gas Monitoring Process.....	37
1.8.2.1. Frequency	37
1.8.2.2. Assessment	38
1.8.3. Corrective Action.....	40
1.9. Inspection/Maintenance/Repair Activities and Frequencies	41
1.9.1. Final Cover System Inspection/Maintenance/Repair	42
1.9.1.1. Vegetation Inspection and Monitoring	42
1.9.1.2. Cover Inspection.....	42
1.9.1.3. Maintenance/Repair.....	42
1.9.2. Storm-Water Diversion Structure Inspection/Maintenance/Repair.....	43
1.9.2.1. Inspection.....	43
1.9.2.2. Maintenance/Repair.....	43
1.9.3. Monitoring Well Network Inspection/Maintenance/Repair	43
1.9.3.1. Inspection.....	43
1.9.3.2. Maintenance/Repair.....	44
1.9.4. Security Fence Inspection/Maintenance/Repair	44
1.9.4.1. Inspection.....	44
1.9.4.2. Maintenance/Repair.....	44

TABLE OF CONTENTS, CONTINUED

1.10.	Inspection Schedule, Corrective Actions, and Recorded Results	44
1.11.	Personnel Training	45
1.12.	Record Keeping and Reporting	47
1.13.	Potential for Exposure	49
1.14.	Potential for Emergency	49
1.15.	References	49
PERMIT ATTACHMENT 2: GROUNDWATER SAMPLING AND ANALYSIS PLAN		66
2.0	INTRODUCTION	66
2.1.	Data Quality Objectives and Quality Control	66
2.2.	Accuracy	67
2.3.	Precision	68
2.4.	Completeness	68
2.5.	Data Representativeness	68
2.6.	Comparability	68
2.7.	Sampling Locations and Frequency	68
2.8.	Field Operations	69
2.9.	Safety	69
2.10.	Water Level Measurements	69
2.11.	Field Water Quality Parameters	70
2.12.	Sample Collection	70
2.13.	Monitoring Equipment Field Checks	71
2.14.	Equipment Decontamination	71
2.15.	Waste Management	71
2.16.	Sample Documentation and Custody	71
2.17.	Sample Shipment	72
2.18.	Laboratory Analytical Procedures	72
2.19.	Analytical Laboratory	72
2.20.	Quality Control	73
2.20.1.	Field Quality Control	73
2.20.2.	Laboratory Quality Control	74
2.21.	Data Validation, Review, and Reporting	74
2.21.1.	Field Water Quality Data and Documentation Review	75
2.21.2.	Laboratory Data Verification and Validation	75
2.21.3.	Data Reporting	75
2.21.4.	Records Management	75
2.22.	Non-Conformances and Variances	76
2.23.	References	76

TABLE OF CONTENTS, CONTINUED

PERMIT ATTACHMENT 3: SOIL-GAS SAMPLING AND ANALYSIS PLAN.....	83
3.0 INTRODUCTION.....	83
3.1. Purpose.....	83
3.2. Historical Soil-Gas Monitoring.....	83
3.3. Post-Closure Care Soil-Gas Monitoring Objectives	83
3.4. Data Quality Objectives	84
3.5. Sampling Locations and Frequency	84
3.5.1. Sample Locations.....	84
3.5.2. Frequency.....	84
3.6. Data Accuracy	84
3.7. Data Consistency and Comparability	86
3.8. Monitoring Activities.....	86
3.9. Field Sampling.....	86
3.9.1. Pre-Field Sampling Preparations	87
3.9.2. Purging and Field Estimation of Total Concentration of VOCs.....	87
3.9.3. Sample Collection.....	88
3.10. Laboratory Analysis and Data Review	88
3.10.1. Data Verification.....	88
3.10.2. Data Validation	88
3.11. Data Management and Reporting	90
3.12. Records Management	90
3.13. References.....	90
PERMIT ATTACHMENT 4: INSPECTION FORMS.....	98
PERMIT ATTACHMENT 5: PERSONNEL TRAINING PROGRAM	107
5.0 INTRODUCTION.....	107
5.1. Relevance of Training to Job Position	107
5.2. Implementation of Training Program	107
5.3. Outline of the Training Program	107
5.4. Job Title/Job Description	107
5.5. Training Content, Frequency, and Techniques	110
5.6. Emergency Training	110
5.7. Training Records	112
PERMIT ATTACHMENT 6: CONTINGENCY PLAN.....	113
6.0 INTRODUCTION.....	113
6.1. Distribution of Contingency Plan and Amendments.....	114
6.2. Emergency Response Resources.....	114
6.2.1. Emergency Coordinator (EC) and Responsibilities.....	114

TABLE OF CONTENTS, CONCLUDED

6.2.2. Emergency Response Groups	115
6.2.3. Emergency Chain of Command.....	115
6.2.4. Support Agreements and Coordination with Outside Agencies	116
6.3. Emergency Equipment	116
6.4. Contingency Plan Implementation.....	117
6.4.1. Emergencies.....	117
6.4.1.1. <i>Fire</i>	119
6.4.1.2. <i>Explosion</i>	120
6.4.1.3. <i>Uncontrolled Release</i>	120
6.4.2. Evacuation	121
6.4.3. Coordination with Off-Site Parties and Emergency Notification.....	122
6.5. Post-Emergency Actions.....	122
6.6. Emergency Response Records And Reports	123

LIST OF FIGURES

Figure 1	Location of the Chemical Waste Landfill with respect to Kirtland Air Force Base and the City of Albuquerque.....	55
Figure 2	Location of the Chemical Waste Landfill within Technical Area III.....	56
Figure 3	Topographic map of Kirtland Air Force Base Showing Location of CWL.....	57
Figure 4	Post-VE VCM Volatile Organic Compound Soil-Gas Plume - September 2004.....	58
Figure 5	Extent of LE VCM Excavation and Final Verification Soil Sampling Grid Locations.....	59
Figure 6	Site Layout for the Post-Closure Care Period Chemical Waste Landfill.....	60
Figure 7	Panoramic Photographs of the CWL prior to and After Cover Installation.....	61
Figure 8	Schematic of the CWL Excavation Backfill and Cover Layers.....	62
Figure 9	Potentiometric Surface of the Upper Aquifer and Post-Closure Groundwater Monitoring Wells.....	63
Figure 10	Soil-Gas Monitoring Wells and Depth Specific Sampling Ports.....	64
Figure 11	Schematic of Passive Soil-Gas Venting Well Equipped with a Baroball™ Device...65	
Figure 12	CWL Cover Grading Plan Showing Surface Drainage Features and Flow Lines.....	66

LIST OF TABLES

Permit Part 3

Table 3-1	Residual Soil Concentrations in the CWL – Replaceable and Unexcavated Soil.....	20
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Permit Attachments 1-6

Table 1-1	Native Plant Species and Seeding Rate Calculations for the CWL Cover.....	29
Table 1-2	Concentration Limits for Three Hazardous Constituents.....	31
Table 1-3	Final Use/Disposition Summary CWL Groundwater Monitoring and Vapor Extraction Well Inventory.....	32
Table 1-4	CWL Groundwater and Soil-Gas Monitoring Frequency, Parameters, and Methods.....	36
Table 1-5	CWL Post-Closure Care Soil-Gas Monitoring EPA Compendium Method TO-14 Analyte List.....	40
Table 1-6	CWL Post-Closure Inspection and Maintenance/Repair Schedules and Prescribed Maintenance/Repairs of the CWL and Associated Systems.....	47
Table 2-1	Reference Documentation CWL Groundwater Monitoring.....	68
Table 2-2	CWL Groundwater Monitoring Wells and Sampling Frequency.....	70
Table 2-3	Laboratory Analytical Methods, Container Types, and Preservatives.....	74
Table 3-1	Soil-Gas Monitoring Ports to be Sampled during CWL Post-Closure Care.....	86
Table 3-2	Reference Documentation CWL Post-Closure Care Soil-Gas Monitoring.....	88
Table 3-3	EPA Compendium Method TO-14 Analyte List.....	90
Table 5-1	Job Title, Description, and Qualifications CWL Project Leader/Operations Coordinator.....	109
Table 5-2	Job Title, Description, and Qualifications CWL Field Technician.....	110
Table 5-3	Job Title, Description, and Qualifications CWL Staff Biologist.....	110
Table 5-4	Training Content.....	112
Table 6-1	Agreements and Memoranda of Understanding for Emergency Response.....	117
Table 6-2	CWL Emergency Response Equipment Inventory.....	118
Table 6-3	Facility Emergency Response System Notification.....	119
Table 6-4	Emergency Equipment for the CWL, Located at the CAMU.....	119
Table 6-5	Emergency Coordinator List for the Chemical Waste Landfill.....	125

LIST OF ABBREVIATIONS/ACRONYMS

AOP	Administrative Operating Procedure
bgs	below ground surface
CAMU	Corrective Action Management Unit
C.F.R.	Code of Federal Regulations
Cr	Chromium
CWL	Chemical Waste Landfill
°C	degrees Celsius
DO	dissolved oxygen
DOE	U.S. Department of Energy
DOE/SNL	U.S. Department of Energy/Sandia National Laboratories
DQO	Data Quality Objective
EC	Emergency Coordinator
EPA	U.S. Environmental Protection Agency
ES&H	Environmental Safety and Health
FOP	Field Operating Procedure
HWA	New Mexico Hazardous Waste Act
HWB	New Mexico Hazardous Waste Bureau
KAFB	Kirtland Air Force Base
L	liter(s)
LCS	laboratory control samples
LE	Landfill Excavation
LOP	Laboratory Operating Procedure
MAA	Mutual Aid Agreement
MCL	maximum contaminant level
µg	microgram(s)
mg	milligram(s)
MOU	Memorandum of Understanding
MS	matrix spike
Ni	Nickel
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMSA	New Mexico Statutory Authority
NTU	Nephelometric Turbidity Unit
OSHA	Occupational Safety and Health Administration

LIST OF ABBREVIATIONS/ACRONYMS, CONCLUDED

%R	percent recovery
PCIF	Post-Closure Inspection Form
pH	potential of Hydrogen
PLA	Plan
ppmv	part(s) per million volume basis
QA	Quality assurance
QC	Quality control
RAP	Remedial Action Proposal
RCRA	Resource Conservation and Recovery Act
RPD	Relative percent difference
SAP	Sampling and Analysis Plan
SC	Specific conductance
SMO	Sample Management Office
SNL/NM	Sandia National Laboratories/New Mexico
SOB	Site operational boundary
SOW	Statement of Work
SVOC	Semi-volatile organic compound
TA	Technical Area
TB	Trip Blank
TCE	Trichloroethene
VCM	Voluntary Corrective Measure
VE	Vapor Extraction
VOC	Volatile organic compound

PERMIT PART 1: GENERAL PERMIT CONDITIONS

1.0 GENERAL

This Permit Part contains general permit conditions pertaining to post-closure care of the Chemical Waste Landfill (CWL) at the Sandia National Laboratories (SNL) Facility, as permitted under the New Mexico Hazardous Waste Act (HWA), NMSA 1978, §§ 74-4-1 to 74-4-14, and in accordance with the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992k.

In accordance with 40 C.F.R. § 270.1(c), owners and operators of landfills that received waste after July 26, 1982, or that certified closure after July 26, 1983, must have a Post-Closure Care permit. This permit addresses applicable 40 C.F.R. Part 264 groundwater monitoring, corrective action, and post-closure requirements. The CWL was an interim status landfill that was closed in accordance with 40 C.F.R. Part 265 Subpart G and the 1992 CWL Final Closure Plan, as amended. This Post-Closure Care Permit (the Permit) identifies the post-closure activities that shall be performed at the CWL. This Permit is designed to meet RCRA post-closure care requirements in 40 C.F.R. §§ 264.117 through 264.120 and shall become effective and immediately supersede the CWL Closure Plan (SNL/NM December 1992) upon the date of the Department's written approval of the Permittees' certification of the closure of the CWL.

1.1. LEGAL AUTHORITY

The Department issues this Post-Closure Care Permit to the United States Department of Energy and Sandia Corporation (the Permittees) pursuant to Section 74-4-10 of the HWA. Additionally, Section 6001 of RCRA provides, in part, that "[e]ach department, agency, and instrumentality of the executive branch of the Federal Government (1) having jurisdiction over any solid waste management facility or disposal site, or (2) engaged in any activity resulting, or which may result, in the disposal or management of solid waste or hazardous waste shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural..., respecting control and abatement of solid waste or hazardous waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements...." [42 U.S.C. § 6961(a)].

Any violation of any condition of this Permit may subject the Permittees, and its officers, employees, successors, and assigns, to a compliance order under Section 74-4-10 of the HWA or Section 3008(a) of RCRA, 42 U.S.C. § 6928(a); to an injunction under Section 74-4-10 of the HWA, Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), or Section 7002(a) of RCRA, 42 U.S.C. § 6972(a); to civil penalties under Section 74-4-10 of the HWA, Section 3008(a) and (g) of RCRA, 42 U.S.C. § 6928(a) and (g), or Section 7002(a) of RCRA, 42 U.S.C. § 6972(a); to criminal penalties under Section 74-4-11 of the HWA or Section 3008(d), (e), and (f) of RCRA, 42 U.S.C. § 6928(d), (e), and (f), or to some combination of the foregoing. The list of authorities in this paragraph is not exhaustive, and the Department reserves the right to take any action authorized by law to enforce the requirements of this Permit.

1.2. PERMIT CONSTRUCTION

Whenever provisions of this Permit or of the New Mexico Hazardous Waste Management Regulations (HWMR), 20.4.1 NMAC, incorporating 40 C.F.R. Parts 260 through 270 are cited, the citation shall include all subordinate provisions of the cited provision paragraphs of this Permit or of the HWMR. When subordinate sections are cited, such citations shall include all subsections of the cited paragraphs.

Hazardous waste management regulations are frequently cited throughout this Permit. The federal Hazardous Waste Management Regulations, 40 C.F.R. Parts 260 through 273, are generally cited rather than the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC. The federal regulations are cited because only the federal regulations set forth the detailed regulatory requirements; the State regulations incorporate by reference, with certain exceptions, the federal regulations in their entirety. Citing only the federal regulations also serves to avoid encumbering each citation with references to two sets of regulations. However, it is the State regulations that are legally applicable and enforceable. Therefore, for the purpose of this Permit, and enforcement of its terms and conditions, all references to provisions of federal regulations that have been incorporated into the State regulations shall be deemed to include the State incorporation of those provisions.

If there is a conflict between the provisions of the Permit Parts and the provisions of the Permit Attachments, then the provisions of the Permit Parts shall override the provisions of the Permit Attachments.

1.3. SEVERABILITY

The provisions of the Permit are severable, and if any provision of this Permit, or any application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

1.4. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meanings as those in HWA, RCRA, and their implementing regulations, unless this Permit specifically provides otherwise. Where a term is not defined in HWA, RCRA, their implementing regulations or this Permit, the meaning associated with such a term shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

“Chemical Waste Landfill” (CWL) is a 1.9-acre RCRA hazardous waste landfill undergoing post-closure care. It is located in the southeastern corner of Technical Area III at the Facility. From 1962 through 1985 the CWL was used for the disposal of chemical, radioactive, and solid wastes into unlined pits and trenches. These wastes were generated by SNL research activities. It is the regulated unit subject to this Permit.

“Corrective Action Management Unit” (CAMU) is a site adjacent to the CWL that is used for the containment of hazardous waste that was generated during environmental restoration project remediation activities at the Facility.

“Days” refers to calendar days unless specified otherwise in this Permit.

“Department” or “NMED” means the New Mexico Environment Department and any successor agencies.

“DOE” means the United States Department of Energy, which is a Department of the United States government, and any successor departments or agencies.

“EPA” means the United States Environmental Protection Agency and any successor agencies.

“Facility” means Sandia National Laboratories including all contiguous land, and structures, other appurtenances, and improvements on the land. For the purposes of implementing corrective action under 40 C.F.R. § 264.101, or RCRA Section 3008(h), or the HWA, NMSA 1978, § 74-4-10(E), the Facility includes all contiguous property under the control of the owner or operator seeking a Permit under Subtitle C of RCRA, that is, 40 C.F.R. Parts 260 through 273.

“Hazardous Constituent” or “Hazardous Waste Constituent” means any constituent identified in 40 C.F.R. Part 261 Appendix VIII, or 40 C.F.R. Part 264 Appendix IX.

“Hazardous waste” shall have the meaning set forth in the HWA, Section 74-4-3(K) and the HWMR, 20.4.1 NMAC.

“Hazardous Waste Regulations” or “HWMR” means the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC and all provisions of 40 C.F.R. Parts 260 through 273 incorporated therein.

“Permit” means this Permit issued to the Permittees for the Facility, pursuant to the HWA and the HWMR for the Facility to conduct post-closure care of the CWL following the procedures in this Permit, EPA ID No. NM5890110518-2, as it may be modified or amended.

“Permittees” mean Sandia Corporation and the United States Department of Energy.

“RCRA” means the Resource Conservation and Recovery Act of 1980, as amended, 42 U.S.C. §§ 6901 to 6992k, as amended.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of any hazardous waste or hazardous constituents into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous waste or hazardous constituents).

“Solid Waste” means a solid waste as defined in 40 C.F.R. § 261.2.

“Technical Area” (TA) means a specific parcel of land controlled by Sandia National Laboratories and owned by the DOE.

If, subsequent to the issuance of this Permit, regulations are promulgated which redefine any of the above terms, the Department may, at its discretion, apply the new definition to this Permit.

1.5. EFFECT OF PERMIT

The New Mexico Environment Department issues this Permit to the Permittees, the owner and operators of the CWL, located at the Facility (EPA I.D. Number NM5890110518). This Permit requires the Permittees to conduct post-closure care of the CWL, and establishes the general and specific standards for these activities, pursuant to the HWA and the HWMR.

1.5.1. Compliance with Permit (Permit Shield)

Compliance with this Permit during its term constitutes compliance, for purposes of enforcement, with 40 C.F.R. Parts 264 and 268, only for those management practices specifically authorized by this permit. The Permittees must also comply with 40 C.F.R. Parts 260, 261, 262, and 263; to the extent the requirements of those Parts are applicable. The Permittees must also comply with all applicable self-implementing provisions imposed by statute or rule. Compliance with this Permit shall not constitute a defense to any order issued or any action brought under HWA, NMSA 1978, § 74-4-10(E) or § 74-4-13; RCRA § 3008(a), § 3008(h), § 3013, § 7002, or § 7003; the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601 *et seq.*, or any other law providing for protection of public health or the environment. Pursuant to 40 C.F.R. § 270.4 and § 270.30(g), this Permit does not convey any property rights of any sort or any exclusive privilege, nor authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations in accordance with 40 C.F.R. § 270.4 and § 270.30(g).

The complete Permit consists of Permit Parts 1 through 3 and Permit Attachments 1 through 6 as follows.

Part 1	General Permit Conditions
Part 2	General Facility Conditions
Part 3	Post-Closure Care Requirements for the Chemical Waste Landfill
Attachment 1	Post-Closure Care Plan for the Chemical Waste Landfill
Attachment 2	Groundwater Sampling and Analysis Plan
Attachment 3	Soil-Gas Sampling and Analysis Plan
Attachment 4	Inspection Forms
Attachment 5	Personnel Training Program
Attachment 6	Contingency Plan

1.6. PERMIT ACTIONS

1.6.1. Term of Permit

This Permit shall be effective for a fixed period of 10 years from the effective date as specified in Section 1.0 of this Permit, in accordance with 40 C.F.R. § 270.50(a), subject to Section 1.6.2 of this Permit Part.

1.6.2. Permit Modification, Suspension, Revocation, and Termination

1.6.2.1. Permit Modification

If at any time for any of the reasons specified in 40 C.F.R. § 270.41, the Department determines that modification of this Permit is necessary, in accordance with 20.4.1.901 NMAC, the Department may modify or revoke and reissue the Permit accordingly.

1.6.2.2. Permit Modification at the Request of the Permittees

The Permittees may initiate permit modifications in accordance with 40 C.F.R. § 270.42 and 20.4.1.901 NMAC. All applicable requirements specified in 40 C.F.R. § 270.42 shall be followed.

1.6.2.3. Permit Suspension, Revocation, and Termination

This Permit may be modified, suspended, revoked or terminated for cause in accordance with the provisions of HWA, NMSA 1978, § 74-4-4.2, 40 C.F.R. §§ 270.41 through 270.43 and 20.4.1.901 NMAC. The filing of a request by the Permittees for a Permit modification, suspension, or revocation, or the notification of planned changes or anticipated noncompliance, shall not stay any Permit condition, in accordance with 40 C.F.R. § 270.30(f).

Modifications to this Permit do not constitute a reissuance of this Permit

1.6.3. Permit Renewal/Duty to Reapply

The Permittees shall renew this Permit by submitting an application for a new permit at least one hundred eighty (180) days before the expiration date of this Permit, as required by 40 C.F.R. § 270.10(h) and 40 C.F.R. § 270.30(b).

1.6.4. Continuation of Expiring Permit

In accordance with 40 C.F.R. § 270.51, if the Permittees have submitted a timely and complete application for renewal of this Permit as specified in 40 C.F.R. §§ 270.10, 270.11, 270.12 (as applicable), and 270.13 through 270.29, this Permit shall remain in effect until the effective date of the new permit if, through no fault of the Permittees, the Department has not issued a new permit on or before the expiration date of this Permit.

1.6.5. Transfer of Permit

The Permittees may only transfer this Permit after providing notice to and receiving approval from the Department. The prospective new owner or operator must file a disclosure statement with the Department as specified at HWA, NMSA 1978, § 74-4-4.7. The Department may require modification or revocation and reissuance of this Permit in accordance with 40 C.F.R. §§ 270.40(b) and 270.41(b)(2).

Before transferring ownership or post-closure care of the CWL, the Permittees shall notify the new owner or operator in writing of the requirements of 40 C.F.R. Parts 264 and 270, and 40 C.F.R. §§ 264.12(c) and 270.30(1)(3) and shall provide the Department with a copy of this notice.

1.6.6. Permit Review

In accordance with 40 C.F.R. § 270.50(d), the Department will review this Permit five years after the effective date of Permit issuance, and may modify this Permit as necessary pursuant to Section 74-4-4.2 of the HWA and 40 C.F.R. § 270.41. Nothing in this section shall preclude the Department from reviewing and, in accordance with applicable requirements, modifying the Permit at any time during its term.

In accordance with 40 C.F.R. § 270.50(b), such modification(s) shall not extend the effective term of this Permit as specified in Permit Condition 1.6.2. Nothing in this Section shall preclude the Department from reviewing and modifying the Permit at any time during its term.

1.7. POINTS OF CONTACT DURING POST-CLOSURE CARE

Points of contact during the compliance monitoring and post-closure care periods are identified below.

The DOE contact person is:

Site Office Manager
U.S. Department of Energy
P.O. Box 5400,
Albuquerque, NM 87185-0184

The Sandia contact person is:

Vice President
Waste Management Operations
Sandia National Laboratories
P.O. Box 5800,
Albuquerque, NM 87185-5800

All reports required by the permit shall be signed by a responsible corporate officer or principal executive officer or their duly authorized representatives in accordance with 40 C.F.R. § 270.11(b). The Permittees shall provide written notification to the Department within thirty days of any changes concerning the names of and contact information for the responsible corporate and principal executive officers or their duly authorized representatives.

1.8. DUTIES AND REQUIREMENTS

1.8.1. Duty to Comply

In accordance with 40 C.F.R. § 270.30(a), the Permittees shall comply with all conditions in this Permit, except to the extent and for the duration such noncompliance is authorized in an emergency permit specified in 40 C.F.R. § 270.61. Any Permit noncompliance, except under the terms of an emergency permit, constitutes a violation of HWA and RCRA and may subject the Permittees, its successors and assigns, officers, directors, employees, parents, or subsidiaries, to:

1. An administrative or civil enforcement action, including civil penalties and injunctive relief, as specified under Section 74-4-10 of the HWA or Sections 3008(a) and (g), 7002, or 7003 of RCRA;
2. Permit modification, suspension, or revocation, or to denial of a permit application or modification request, under Section 74-4-4.2 of the HWA; or
3. Criminal fines or imprisonment under the HWA, NMSA § 74-4-11, or Section 3008(d), (e), or (f) of RCRA; or to a combination of the foregoing.

1.8.2. Need to Halt or Reduce Activity Not a Defense

In accordance with 40 C.F.R. § 270.30(c), it shall not be a defense for the Permittees in an enforcement action that it would have been necessary for the Permittees to halt or reduce the permitted activities in order to maintain compliance with the terms of this Permit.

1.8.3. Duty to Mitigate

In accordance with 40 C.F.R. § 270.30(d), in the event of noncompliance with this Permit, the Permittees shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

1.8.4. Proper Operation and Maintenance

In accordance with 40 C.F.R. § 270.30(e), the Permittees shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittees to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

1.8.5. Duty to Provide Information

In accordance with 40 C.F.R. §§ 264.74(a) and 270.30(h), the Permittees shall furnish to the Department, within a reasonable time as specified by the Department, any relevant information which the Department may request to determine whether cause exists for modifying, suspending, or revoking this Permit, or to determine compliance with this Permit. The Permittees shall also furnish to the Department, upon request, copies of records required to be kept by this Permit.

This Permit Condition shall not be construed to limit, in any manner, the Department's authority under HWA, NMSA 1978, § 74-4-4.3 or RCRA § 3007(a).

1.8.6. Inspection and Entry

In accordance with 40 C.F.R. § 270.30(i), the Permittees shall allow the Department, or authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter at reasonable times into the Permittees' premises where the regulated Facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
3. Inspect at reasonable times the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA and/or the HWA, any substances or parameters, including soil, air, sediment, surface water, and groundwater at the Facility.

This Permit Condition shall not be construed to limit, in any manner, the Department's authority under HWA, NMSA 1978, § 74-4-4.3 or RCRA § 3007(a).

1.8.7. Monitoring and Records

1. Representative sampling - For purposes of monitoring, in accordance with 40 C.F.R. § 270.30(j)(1), the Permittees shall take samples and measurements that are representative of the monitored activity.
2. Record Retention - In accordance with 40 C.F.R. § 270.30(j)(2), the Permittees shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by 40 C.F.R. § 264.73(b)(9) and records of all data used to complete the Permit application for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. The Permittees shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the post-closure period.

In addition, all records must be furnished upon request, and made available at all reasonable times for inspection by any representative of the Department. The record retention period may be extended by request of the Department at any time and is automatically extended during the course of any unresolved enforcement action regarding this Facility.

3. Monitoring Records Contents - In accordance with 40 C.F.R. § 270.30(j)(3), records of monitoring information shall include:
 - a. The dates, exact place, and times of sampling or measurements;
 - b. The names of the individuals who performed the sampling or measurements;
 - c. The name and address of the laboratory that performed the analysis;
 - d. The dates analyses were performed;
 - e. The names of the individuals who performed the analyses;
 - f. The analytical techniques or methods used; and
 - g. The results of such analyses.

1.8.8. Reporting Planned Changes

In accordance with 40 C.F.R. § 270.30(l)(1), the Permittees shall give notice to the Department, as soon as possible, of any planned physical alterations or additions to the CWL.

1.8.9. Reporting Anticipated Noncompliance

In accordance with 40 C.F.R. § 270.30(l)(2), the Permittees shall give advance notice to the Department of any planned changes to the CWL or in any activities which may result in noncompliance with Permit requirements.

1.8.10. Certification of Construction or Modification

In accordance with 40 C.F.R. § 270.30(1)(2), if the CWL is modified, the Permittees shall not treat, store or dispose of hazardous waste in the modified portion of the CWL, except as provided in Sections 1.6.2 and 1.6.3 of this Permit Part 1 and 40 C.F.R. § 270.42, unless the following conditions have been satisfied:

1. The Permittees have submitted to the Department, by certified mail or hand delivery, a letter signed by the Permittees and an independent professional engineer registered in New Mexico stating that the CWL's modification meets the requirements of this Permit; and
2. The Department has:
 - a. inspected the modified or newly constructed portion of the CWL and it meets the requirements and conditions of this Permit; or
 - b. waived the inspection or, within fifteen (15) calendar days from the date of submission of the letter required by Permit Condition 1.8.11.a., has not notified the Permittees of its intent to inspect.

1.8.11. Twenty-Four Hour and Subsequent Reporting

1.8.11.1. Oral Report

In accordance with 40 C.F.R. § 270.30(1)(6)(i) and (ii), the Permittees shall report to the Department any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittees become aware of the circumstances. The report shall include the following:

1. Information concerning release of any hazardous waste, or hazardous constituents, that may cause an endangerment to public drinking water supplies; and
2. Any information about a release or discharge of hazardous waste, or hazardous constituents, or of a fire or explosion at the permitted unit which could threaten the environment or human health outside the permitted unit.
3. The description of the occurrence and its cause shall include:
 - a. Name, address, and telephone number of the owner or operator and the name and phone number of the contact person;
 - b. Name, address, and telephone number of the Facility;
 - c. Date, time, and type of incident;
 - d. Name and quantity of material(s) involved;
 - e. The extent of injuries, if any;
 - f. An assessment of actual or potential hazards to the environment and human health at or outside of the permitted unit, where this is applicable; and
 - g. Estimated quantity and disposition of recovered material that resulted from the incident.

1.8.11.2. Written Report

In accordance with 40 C.F.R. § 270.30(1)(6)(iii), the Permittees shall also submit a written report within five (5) calendar days from the time the Permittees become aware of the noncompliance. The

written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The report shall also include the following:

1. Information concerning release of any hazardous waste, or hazardous constituents, that may cause an endangerment to public drinking water supplies; and
2. Any information about a release or discharge of hazardous waste, or hazardous constituents, or of a fire or explosion at the permitted unit which could threaten the environment or human health outside the permitted unit.
3. The description of the occurrence and its cause shall include:
 - a. Name, address, and telephone number of the owner or operator and the name and phone number of the contact person;
 - b. Name, address, and telephone number of the Facility;
 - c. Date, time, and type of incident;
 - d. Name and quantity of material(s) involved;
 - e. The extent of injuries, if any;
 - f. An assessment of actual or potential hazards to the environment and human health at or outside of the permitted unit, where this is applicable; and
 - g. Estimated quantity and disposition of recovered material that resulted from the incident.

The Department, at its discretion, may extend the time for submitting the written report to up to fifteen (15) calendar days.

1.8.11.3. Reports Required by Contingency Plan

Any time the Contingency Plan in Permit Attachment 6 is implemented, the Permittees shall comply with the reporting requirements required by 40 C.F.R. § 264.56(j).

1.8.12. Admissibility of Data

In any administrative or judicial action to enforce a condition of this Permit, the Permittees waive any objection to the admissibility as evidence of any data generated pursuant to this Permit.

1.8.13. Other Noncompliance

In accordance with 40 C.F.R. § 270.30(l)(10), the Permittees shall report all other instances of noncompliance not otherwise required to be reported under this Permit at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition 1.8.11.

1.8.14. Other Information

In accordance with 40 C.F.R. § 270.30(l)(11), whenever the Permittees become aware that they failed to submit any relevant facts in the Permit Application, or submitted incorrect information in the Permit Application or in any report to the Department, the Permittees shall promptly submit such facts or information in writing to the Department.

1.9. REPORTS, NOTIFICATIONS, AND INFORMATION SUBMITTALS

1.9.1. Information Submittal

The Permittees shall submit by certified mail, courier/delivery service or hand delivery all reports, notifications, or other submittals that are required by this Permit to be sent or given to the Department.

In accordance with 40 C.F.R. § 270.43, failure to comply with any condition of the Permit, including relevant information submittal, constitutes a violation of the Permit and is grounds for enforcement action, Permit amendment, termination, revocation, suspension, or denial of Permit renewal application. Misrepresentation of any relevant facts at any time is grounds for termination of this Permit.

The Permittees shall ensure that all plans, reports, notifications, and other submittals to the Department required in this Permit are signed and certified in accordance with 40 C.F.R. § 270.11. Two (2) copies each of these plans, reports, notifications or other submissions shall be submitted to the Department by certified mail, courier/delivery service, or hand delivered to:

New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone Number: (505) 476-6000
Facsimile Number: (505) 476-6030

1.9.2. Incorporation of Plans and Schedules into the Permit

All plans and schedules required by this Permit are, upon approval by the Department, incorporated into this Permit by reference and become an enforceable part of this Permit. Because required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient relevant information may subject the Permittees to enforcement action under Section 74-4-10 of the HWA, which may include penalties and suspension or revocation of this Permit.

Any noncompliance with approved plans and schedules shall be deemed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by the Department.

1.10. CONFIDENTIAL INFORMATION

The Permittees may claim confidentiality for any information required to be submitted by this Permit. Any such claim must be asserted at the time of submittal in the manner prescribed on the application form, or in the case of other submittals, by stamping the words “confidential business information” on each page containing such information. If no claim is made, the Department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with 40 C.F.R. § 270.12, the Inspection of Public Records Act, NMSA 1978, 14-2-1 to -12, and the HWA, NMSA 1978, 74-4-1 to -14.

PERMIT PART 2: GENERAL FACILITY CONDITIONS

2.0 INTRODUCTION

This Permit requires the Permittees to conduct post-closure care of the Chemical Waste Landfill (CWL), which is located at Technical Area III (TA-III), in compliance with the post-closure care requirements at 40 C.F.R. §§ 264.117 through 264.120 and this Permit.

The Permittees must comply with the groundwater protection standard at 40 C.F.R. § 264.92. Trichloroethene (TCE), chromium, and nickel have been detected in groundwater in the uppermost aquifer underlying the CWL. Therefore, in accordance with 40 C.F.R. § 264.91(a)(1), the Permittees must institute a compliance monitoring program meeting the requirements of 40 C.F.R. § 264.99.

2.1. HAZARDOUS WASTE PROHIBITION

The Permittees shall not accept hazardous waste for treatment, storage or disposal at the CWL.

2.2. SECURITY

In order to prevent the unknowing entry and to minimize the possibility of unauthorized entry of persons or livestock into the CWL, the Permittees shall comply with the security provisions and procedures described in Section 1.6 of Permit Attachment 1, in accordance with 40 C.F.R. § 264.14.

2.3. GENERAL INSPECTION REQUIREMENTS

In accordance with 40 C.F.R. § 264.15, the Permittees shall implement the inspection schedule required by Section 1.10 of Permit Attachment 1 and shall remedy any container and equipment malfunctions and deteriorations, operator errors, and discharges in accordance with 40 C.F.R. § 264.15(c). Records of inspection shall be kept in accordance with 40 C.F.R. § 264.15(d).

2.4. PREPAREDNESS AND PREVENTION

2.4.1. Required Equipment

The Permittees shall maintain at the Facility the equipment required by 40 C.F.R. § 264.32 as well as the additional equipment set forth in Permit Attachment 6, Tables 6-2, 6-3 and 6-4.

2.4.2. Testing and Maintenance of Equipment

The Permittees shall test and maintain the equipment specified in Permit Attachment 6, as necessary, to assure its proper operation in time of emergency in accordance with 40 C.F.R. § 264.33.

2.4.3. Access to Communications or Alarm System

The Permittees shall maintain at the CWL access to a communications or alarm system in accordance with 40 C.F.R. § 264.34.

2.4.4. Arrangements with Local Authorities

The Permittees shall maintain coordination agreements with the New Mexico Department of Homeland Security and Emergency Management, the KAFB 377th Air Base Wing, and the City of Albuquerque as well as with the University of New Mexico Medical Center, Lovelace Medical Center and Presbyterian Health Care Services, as described in Permit Attachment 6, Table 6-1. These arrangements shall be either Memoranda of Understanding (MOU) or Mutual Aid Agreements

(MAA) between the Permittees and the off-site cooperating agencies, and shall include the elements required by 40 C.F.R. § 264.37(a). Copies and descriptions of these MOUs and MAAs shall be maintained at the Facility office in the operating record. If such coordination agreements can not be reached through Permittees' best efforts, the Permittees shall document their attempts to reach such agreements which failed.

2.5. CONTINGENCY PLAN

2.5.1. Implementation of Contingency Plan

The Permittees shall immediately implement the Contingency Plan contained in Permit Attachment 6 whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment in accordance with 40 C.F.R. § 264.51(b).

2.5.2. Copies of the Contingency Plan

The Permittees shall maintain copies of the Contingency Plan and all revisions and amendments to the Plan at the CAMU Administration Office, the Facility EOC and the Facility Records Center, in accordance with 40 C.F.R. § 264.53 and Section 6-1 of Attachment 6 of this Permit. Any person working at the CWL shall have a copy of the current Contingency Plan in their possession while at the CWL, or shall have ready access and be aware that a copy of the CWL Contingency Plan is available at the CAMU Administration Office. The Permittees shall provide copies of the current Contingency Plan and all revisions of the Plan to the Department and all entities with which the Permittees have emergency MOUs or MAAs in accordance with 40 C.F.R. § 264.53.

2.5.3. Amendments to Contingency Plan

In accordance with 40 C.F.R. § 264.54, the Permittees shall review and immediately amend, if necessary, the Contingency Plan whenever:

1. The Facility permit is revised;
2. The plan fails in an emergency;
3. The Facility or CWL changes—in design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes; or
5. The list of emergency equipment changes.

2.5.4. Emergency Coordinator

An Emergency Coordinator (EC) and an alternate EC, as specified in Permit Attachment 6, shall be available at all times in case of an emergency. The EC and alternate EC shall be thoroughly familiar with the Contingency Plan and shall have the authority to commit the resources needed to implement the Contingency Plan in accordance with 40 C.F.R. § 264.55. In the event of an imminent or actual emergency, the EC shall activate the internal emergency alarms, notify the appropriate State or local agencies with designated response roles, and implement other procedures in accordance with 40 C.F.R. § 264.56, and as described in Permit Attachment 6.

2.6. RECORD KEEPING AND REPORTING

In addition to the record keeping and reporting requirements specified elsewhere in this Permit and 40 C.F.R. § 264.73(a), the Permittees shall comply with the following conditions:

2.6.1. Data Retention

All raw data, such as laboratory reports, drilling logs, bench scale or pilot scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the Facility during the term of this Permit, including any reissued Permits. In accordance with 40 C.F.R. § 270.32(b)(2), raw data shall be made available to the Department upon request.

2.6.2. Operating Record

The Permittees shall maintain a written Operating Record at the Corrective Action Management Unit administration trailer, and at the Environmental Safety and Health Records Center.

2.6.3. Annual Report

The Permittees shall submit a post-closure care report to the Department on an annual basis, as specified in Section 1.12 of Attachment 1 of this Permit.

2.6.4. Personnel and Telephone Number Changes

The Permittees shall inform the Department in writing of changes in their responsible corporate and principal executive officers (or their duly authorized representatives) within 30 days of the changes, and Emergency Coordinators and their telephone numbers and addresses within fifteen (15) calendar days of the changes. Changes to responsible corporate officers and the principal executive officers (or their duly authorized representatives) are not permit modifications. Changes in name, address, or phone number for Emergency Coordinators are Class 1 permit modifications under 40 C.F.R. § 270.42.

2.6.5. Post-Closure Notices

A copy of the post-closure notice required by 40 C.F.R. § 264.119 shall be submitted to the local zoning authority (Bernalillo County Zoning, Building, and Planning Commission and County Clerk) and the Department within 60 days of certification of closure. The post-closure notice shall include a legal description of the CWL and associated land-use restrictions. The following general restrictions apply to the CWL:

1. Industrial land-use designation shall be maintained;
2. The elevation of the surface of the landfill (the engineered cover) shall not be lowered;
3. The cover and surrounding area shall not be altered in any manner such that drainage onto and infiltration of moisture into the landfill is increased; and
4. Excavation, drilling, or construction involving intrusive activities are prohibited during the post-closure care period, unless authorized by the Department.

2.6.6. Certification of Completion of Post-Closure Care

In accordance with 40 C.F.R. § 264.120, within 60 days of the end of the post-closure care period for the CWL, the Permittees shall submit to the Department, by registered mail, a written certification that post-closure care for the CWL was performed in accordance with the specifications of this Permit. Responsible officials of the Permittees, as well as an independent professional engineer, registered in the State of New Mexico, shall sign the certification. The Permittees shall furnish documentation supporting the independent registered professional engineer's certification of completion of post-closure care to the Department upon request and at cost to the Permittees. In addition, the Permittees shall prepare a final post-closure care report containing, in an appendix, all Post-Closure Care Inspection Forms (PCIFs) generated during the post-closure care period. The final post-closure care report shall summarize pertinent PCIF information regarding post-closure care and compliance monitoring, inspections, maintenance, and repair activities and any variances from this Permit and the reasons for the variances, summarize results of groundwater and soil gas monitoring conducted during the compliance and post-closure care periods, and summarize the results of any corrective actions taken. The final post-closure care report shall be provided with the certification to the Department for approval within 60 days of the end of the post-closure period. Transmittal of the report shall include a request from the Permittees for the Department to approve termination of the post-closure care period for the CWL. However, submittal of the latter request does not obligate the Department to terminate post-closure care, and the Department, instead, may extend the period of post-closure care if necessary to protect human health and the environment in accordance with 40 C.F.R. 264.117(a)(2)(ii).

2.7. COST ESTIMATE AND FINANCIAL ASSURANCE FOR FACILITY POST-CLOSURE CARE

Pursuant to 40 C.F.R. § 264.140(c), DOE as an agency of the Federal government is exempt from the requirement to provide a cost estimate for post-closure care as required by 40 C.F.R. § 264.144 and to provide for financial assurance for post-closure care as required by 40 C.F.R. § 264.145. Pursuant to Pub. L. 108-199 (Jan. 23, 2004), Sandia Corporation is not required to fulfill any financial responsibility requirement relating to closure or post-closure care and monitoring of Sandia National Laboratories and is therefore exempt from the requirement to provide a cost estimate for post-closure care as required by 40 C.F.R. § 264.144 and to provide for financial assurance for post-closure care as required by 40 C.F.R. § 264.145.

2.8. FINANCIAL RESPONSIBILITY

Reserved.

2.9. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittees shall maintain at the Facility, until post-closure care is approved as completed by the Department, the following documents and all amendments, revisions, and modifications to these documents:

1. This Permit and its Attachments;
2. The Inspection Plan described in Permit Attachment 1 and the inspection schedules and results in accordance with 40 C.F.R. § 264.15(b);

3. The Operating Record described in Permit Attachment 1, in accordance with 40 C.F.R. § 264.73;
4. The Personnel Training documents and records described in Permit Attachment 5, in accordance with 40 C.F.R. § 264.16(d) and (e);
5. The Contingency Plan described in Permit Attachment 6, in accordance with 40 C.F.R. § 264.53(a), and including summary reports and details of all incidents or emergencies that require implementation of the Contingency Plan, in accordance with 40 C.F.R. § 264.56(j);
6. The names, addresses, and phone numbers of the Emergency Coordinator (EC) and all persons designated as alternate EC, in accordance with Permit Condition 2.6.4, and as contained in Permit Attachment 6;
7. A list of all emergency equipment, as contained in Permit Attachment 6;
8. Groundwater monitoring and soil gas sampling analytical results and data included in the semi-annual and annual reports required under Part 3, Permit Conditions 3.4 and 3.5, and as described in detail in Attachments 2 and 3 of this Permit; and
9. Copies of manifests for any shipments off-site of any hazardous waste generated at the CWL.

PERMIT PART 3: POST-CLOSURE CARE REQUIREMENTS FOR THE CHEMICAL WASTE LANDFILL

3.0 GENERAL

The CWL Closure Plan, which contained mandatory closure requirements for the CWL, was approved by the NMED in February 1993. A few years earlier, in 1990, trichloroethene (TCE) was detected in groundwater at a concentration exceeding the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) of 0.005 mg/L. This finding led to the development and incorporation of a corrective action program into the approved Closure Plan (as Appendix S). Groundwater and subsurface soil and soil-gas investigations, as well as two Voluntary Corrective Measures (VCMs) were subsequently conducted according to Closure Plan requirements and related documents.

The CWL was excavated from September 1998 through February 2002 to remove the contents of the landfill and contaminated soil (the Landfill Excavation VCM). Soil-vapor extraction was conducted prior to the Landfill Excavation VCM and removed a portion of the VOC soil-gas plume in the vadose zone (the Vapor Extraction VCM). Numerous intact containers of waste were removed as a result of excavation of the landfill; the wastes within these containers were treated and disposed of off-site. Soil having the highest levels of contaminants was treated as necessary and placed permanently into the containment cell at the nearby Corrective Action Management Unit. After excavation was completed, the CWL was backfilled with soil to a uniform depth of four feet below ground surface. Some of the soil used as backfill was originally excavated from the landfill (this soil is referred to as replaceable soil). Concentrations of contaminants in the replaceable soil meet industrial risk levels, consistent with the projected future land use for the CWL site. Since completing the Landfill Excavation and Vapor Extraction VCMs, levels of contaminants in the groundwater have dropped to concentrations below applicable EPA MCLs and New Mexico Water Quality Control Commission water quality standards. Construction of the at-grade cover for the CWL was completed in September 2005, originally as an interim measure.

This Permit Part includes information on the requirements for the length of post-closure care, planned monitoring and maintenance activities, and other requirements for post-closure care. More detailed post-closure care requirements for the CWL are presented in the Attachments to this Permit.

In addition to the post-closure care requirements of 40 C.F.R. §§ 264.117 through 264.120, the Permittees must comply with the groundwater protection standard at 40 C.F.R. § 264.92. Trichloroethene (TCE), chromium, and nickel have been detected in groundwater in the uppermost aquifer underlying the CWL. Therefore, in accordance with 40 C.F.R. § 264.91(a)(1), the Permittees must institute a compliance groundwater monitoring program meeting the requirements of 40 C.F.R. § 264.99. In accordance with 40 C.F.R. § 264.96(a), the compliance period shall last for 47 years, and shall begin when the Permittees initiate the required compliance monitoring program in accordance with 40 C.F.R. § 264.99. In accordance with 40 C.F.R. § 264.96(c), if the Permittees are engaged in a corrective action program at the end of the compliance period, the compliance period shall be extended until the Permittees can demonstrate that the groundwater protection standard of 40 C.F.R. § 264.92 has not been exceeded for a period of three consecutive years.

3.1. RESIDUAL SOIL CONTAMINATION AT RISK-BASED LEVELS

Residual soil contamination that remains at the landfill currently meets risk-based levels for industrial land use. Table 3-1 summarizes the maximum concentrations of contaminants detected in replaceable soil and unexcavated soil. As noted above, replaceable soils are soils placed back into the landfill following completion of the Landfill Excavation VCM. Unexcavated soils are soils that were not removed during the LE VCM, but may contain low levels of hazardous constituents meeting risk-based criteria.

Table 3-1

Residual Soil Concentrations in the Chemical Waste Landfill - Replaceable Soil and Unexcavated Soil

COC	SNL/NM Background Concentration (mg/kg) ^a	Maximum Concentration (mg/kg)	Concentration Range in Replaceable Soils above Background (mg/kg)	Number of Detections in Replaceable Soils above Background	Concentration Range in Unexcavated Soils (mg/kg)	Number of Detections in Unexcavated Soils
Inorganic						
Arsenic	4.4	86.3	4.52-86.3	30	4.51-73.1	40
Barium	214	563 J	350-563	4	215-519	8
Beryllium	0.65	1.14	0.668-1.14	3	0.741-0.846	4
Cadmium	0.9	15.6	0.931-15.6	7	1.79	1
Chromium	15.9	1800	16-181	31	17.7-1800	23
Chromium VI	1	24.6	1.02-5.52	10	1.02-24.6	29
Copper	18.2	545 J	18.4-545	25	18.6-261	9
Lead	11.8	338	11.9-338	48	11.9-162	42
Mercury	<0.1	236	0.122-236	49	0.104-2.35	42
Nickel	11.5	26.1	11.6-26.1	7	12.4-23.4	4
Selenium	<1	9.61	1.01-1.58	2	1.07-9.61	3
Silver	<1	1.5	1.02-1.5	2	All results < bkgd	0
Organic						
Acenaphthene	NA	0.406	0.0081-0.153	10	0.00484-0.406	6
Acenaphthylene	NA	0.01835 ^b	ND	0	0.0101	1
Acetone	NA	0.617 ^b J	0.00383-0.0803	35	0.00152-0.617	68
Aniline	NA	0.312 J	0.312	1	0.23-0.293	2
Anthracene	NA	0.347	0.00586-0.347	14	0.00522-0.209	9
Benzo(a)anthracene	NA	0.531	0.0136-0.15	6	0.0174-0.531	7
Benzo(a)pyrene	NA	0.181	0.0338-0.181	4	0.0374-0.0859	4
Benzo(b)fluoranthene	NA	0.787	0.0335-0.787	9	0.021-0.343	6
Benzo(ghi)perylene	NA	0.408 J	0.0275	1	0.0293-0.408	2

COC	SNL/NM Background Concentration (mg/kg) ^a	Maximum Concentration (mg/kg)	Concentration Range in Replaceable Soils above Background (mg/kg)	Number of Detections in Replaceable Soils above Background	Concentration Range in Unexcavated Soils (mg/kg)	Number of Detections in Unexcavated Soils
Benzo(k)fluoranthene	NA	0.218	0.0399-0.218	3	0.00515-0.121	5
Bromodichloromethane	NA	0.0175 ^b	0.00076	1	ND	0
Bromoform	NA	0.018 ^b	0.000554-0.006	21	0.00182	1
4-Bromophenyl phenyl ether	NA	0.02335 ^b	ND	0	0.00843	1
2-Butanone	NA	0.187 J	0.00388-0.00739	9	0.00104-0.187	11
Butylbenzene, tert-	NA	0.015 ^b	ND	0	0.00161	1
Butylbenzyl phthalate	NA	0.0728 J	ND	0	0.0131-0.0728	2
Carbazole	NA	0.0572 J	0.0266-0.0572	4	0.0111	1
Carbon disulfide	NA	0.031 ^b	ND	0	0.00519	1
bis(2-Chloroethyl)ether	NA	0.248 J	0.248	1	ND	0
Chloroform	NA	0.0235 ^b	0.000545-0.00119	14	ND	0
Chloromethane	NA	0.00175 ^b	0.00034	1	ND	0
2-Chloronaphthalene	NA	0.01835 ^b	ND	0	0.0123-0.0125	2
2-Chlorophenol	NA	0.025 ^b	0.00622-0.0059	2	0.00525	1
4-Chlorophenyl phenyl ether	NA	0.01665 ^b	ND	0	0.00826	1
Chrysene	NA	0.559	0.0198-0.559	31	0.0133-0.228	10
Di-n-butyl phthalate	NA	9.3	0.0256-9.3	8	0.0211-0.114	9
Di-n-octyl phthalate	NA	0.347 ^c	ND	0	0.012	1
Dibenzofuran	NA	0.118 J	0.0028-0.118	8	0.00271-0.0951	7
Dibromochloromethane	NA	0.0205 ^b	0.000608-0.00206	9	ND	0
1,2-Dibromoethane	NA	0.016 ^b	ND	0	0.00144	1
1,2-Dichlorobenzene	NA	0.214	0.0142-0.214	5	0.00116-0.114	18
1,3-Dichlorobenzene	NA	0.021 ^b J	0.0037-0.00383	2	0.000447-0.0123	8
1,4-Dichlorobenzene	NA	0.194	0.0129	1	0.00041-0.194	60
2,4-Dichlorophenol	NA	0.04 ^b	0.0128	1	ND	0

COC	SNL/NM Background Concentration (mg/kg) ^a	Maximum Concentration (mg/kg)	Concentration Range in Replaceable Soils above Background (mg/kg)	Number of Detections in Replaceable Soils above Background	Concentration Range in Unexcavated Soils (mg/kg)	Number of Detections in Unexcavated Soils
Diethylphthalate	NA	0.0985b	0.025	1	0.026-0.0544	18
2,4-Dimethylphenol	NA	0.36b	ND	0	0.0883	1
Dimethylphthalate	NA	0.0585b	ND	0	0.0124	1
2,4-Dinitrophenol	NA	0.699	0.699	1	ND	0
Diphenyl amine	NA	0.035b	0.0258	1	ND	0
Ethyl benzene	NA	0.035b	0.00143	1	0.000822-0.00124	3
bis(2-Ethylhexyl) phthalate	NA	57.1	0.0315-5.13	51	0.00911-57.1	125
Fluoranthene	NA	2.03	0.00687-2.03	43	0.00352-0.955	35
Fluorene	NA	0.183	0.00308-0.0947	15	0.00352-0.183	6
Heptachlorodibenzo-p-dioxin	NA	0.000063	ND	0	0.000063	1
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	NA	0.000063	ND	0	0.000063	1
Heptachlorodibenzofuran	NA	0.000047	ND	0	0.000025-0.000047	4
1,2,3,4,6,7,8-Heptachlorodibenzofuran	NA	0.000047	ND	0	0.000025-0.000047	4
Hexachlorobenzene	NA	0.02335b	0.00998-0.0203	3	0.011-0.0167	3
Hexachlorobutadiene	NA	0.02335b	ND	0	0.0147	1
Hexachlorodibenzo-p-dioxin	NA	0.00003	ND	0	0.00003	1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	0.00003	ND	0	0.00003	1
Hexachlorodibenzofuran	NA	0.00002	ND	0	0.00002	1
1,2,3,6,7,8-Hexachlorodibenzofuran	NA	0.00002	ND	0	0.00002	1
Indeno(1,2,3-c,d)pyrene	NA	0.267 J	ND	0	0.0408-0.267	3
4-Isopropyltoluene	NA	0.0401 J	ND	0	0.00154-0.0401	2
Methyl methacrylate	NA	0.102b	ND	0	0.00194-0.006	10
Methylene chloride	NA	0.864	0.000955-0.016	14	0.000448-0.864	70
2-Methylnaphthalene	NA	0.0683	0.00414-0.0295	5	0.00432-0.0683	6
4-Methylphenol (same as p-Cresol)	NA	0.0767 J	0.0119-0.0767	2	0.0195-0.0427	3

COC	SNL/NM Background Concentration (mg/kg) ^a	Maximum Concentration (mg/kg)	Concentration Range in Replaceable Soils above Background (mg/kg)	Number of Detections in Replaceable Soils above Background	Concentration Range in Unexcavated Soils (mg/kg)	Number of Detections in Unexcavated Soils
Naphthalene	NA	0.1b	0.00446-0.0217	3	0.000307-0.0535	27
Octachlorodibenzo[b,e][1,4]dioxin	NA	0.000305	ND	0	0.000085-0.000305	5
Octachlorodibenzofuran	NA	0.000329	ND	0	0.000087-0.000329	6
PCBs, total	NA	24.69	0.00165-24.69	56	0.0016-11.45	118
Pentachlorophenol	NA	1.16	0.218-1.16	5	0.103-0.897	3
4-methyl-2-Pentanone	NA	0.067b	ND	0	0.00136-0.00328	15
Phenanthrene	NA	0.916	0.0134-0.916	24	0.00601-0.2	13
Phenol	NA	0.578	0.00898	1	0.0295-0.578	6
n-Propylbenzene	NA	0.0175b	ND	0	0.00181	1
Pyrene	NA	1.51 J	0.0114-1.46	46	0.00951-1.51	33
Styrene	NA	0.016b	ND	0	ND	0
1,1,1,2-Tetrachloroethane	NA	0.02b	ND	0	0.000946	1
1,1,2,2-Tetrachloroethane	NA	0.0445	ND	0	0.000333-0.0445	3
Tetrachloroethene	NA	0.11	0.0021-0.11	4	0.00158-.0108	6
Tetrahydrofuran	NA	0.119b	ND	0	0.00459-0.089	2
Toluene	NA	0.894	0.000369-0.0183	12	0.0005123-0.894	161
o-Toluidine	NA	0.4065b	ND	0	0.131-0.151	2
1,2,3-Trichlorobenzene	NA	0.0235b	ND	0	0.000453-0.000776	2
1,2,4-Trichlorobenzene	NA	0.043 J	0.00509-0.00618	2	0.000674-0.043	11
Trichloroethene	NA	0.36b	0.00048-0.0021	2	0.000831-0.00206	3
2,4,5-Trichlorophenol	NA	0.22	0.0254-0.22	4	ND	0
1,2,3-Trichloropropane	NA	0.0928	ND	0	0.000404-0.0928	3
1,3,5-Trimethylbenzene	NA	0.021b	ND	0	0.000245-0.0108	4
Xylene	NA	0.00387	0.000804-0.00365	3	0.00387	1
m-,p-Xylene	NA	0.0174	0.0174	1	ND	0
o-Xylene	NA	0.00393	0.00393	1	0.000313-0.000919	2

Radiological Constituents						
COC	SNL/NM Background Concentration (pCi/g)^a	Maximum Concentration (pCi/g)	Activity Range in Replaceable Soils Above Background (pCi/g)	Number of Detections in Replaceable Soils Above Background	Activity Range in Unexcavated Soils Above Background (pCi/g)	Number of Detections in Unexcavated Soils Above Background
Co-60	NA	0.46	ND	0	0.46	1
Cs-137	0.079	0.534	0.0811-0.163	7	0.534	1
H-3	0.021 ^e	9.9	0.0237-9.9	5	0.0216-2.28	14
Th-232	1.01	2.3	1.02-2.3	5	1.08	1
U-235	0.16	0.454 ^b	0.179-0.219	2	0.161-0.227	6
U-238	1.4	3.26	1.47-2.05	11	1.43-3.26	25

Note: Data qualifiers (i.e., “J”) are not included in this table except in the Maximum Concentration column.

^a Dinwiddie, September 1997.

^bMaximum value reported is ½ the maximum detection limit, which was greater than the maximum detected value.

^c Maximum value from a clean fill soil sample – only one detection of this constituent.

^d All total PCB concentrations greater than 1 part per million represent soil at depths greater than 5 feet below ground surface.

^e Tharp, February 1999.

- COC = Constituent of concern.
- J = Estimated concentration.
- mg/kg = Milligram(s) per kilogram.
- NA = Not applicable.
- PCB = Polychlorinated biphenyl.
- pCi/g = Picocurie(s) per gram.

3.2. POST-CLOSURE CARE PROCEDURES AND USE OF PROPERTY

3.2.1. Duration of Post-Closure Care

The Permittees shall conduct post-closure care for the CWL to begin upon the Department's written approval of the Permittees' certification of closure of the unit and continue for 30 years after that date, except that the 30-year post-closure care period may be shortened or extended, as follows:

1. In accordance with 40 C.F.R. § 264.117(a)(2)(i), the Department may, in accordance with the permit modification procedures in 40 C.F.R. Part 270 and 20.4.1.901 NMAC, shorten the post-closure care period if it finds that human health and the environment will be protected sufficiently (e.g., groundwater and soil-gas monitoring results indicate that the CWL is secure).
2. In accordance with 40 C.F.R. § 264.117(a)(2)(ii), the Department may, in accordance with the permit modification procedures in 40 C.F.R. Part 270 and 20.4.1.901 NMAC, extend the post-closure care period if it finds that this is necessary to protect human health or the environment (e.g., groundwater or soil-gas monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment).

3.2.2. Groundwater Monitoring System

The Permittees shall operate and maintain the groundwater monitoring system and shall comply with all applicable requirements of 40 C.F.R. Part 264, Subpart F during the post-closure care and compliance periods, in accordance with 40 C.F.R. § 264.117(a)(1), and as specified in this Permit.

3.2.3. Special Post-Closure Requirements for Landfills

The Permittees shall comply with the requirements for landfills at 40 C.F.R. § 264.310(b), except for the requirements for a leachate collection and removal system, and as described in Attachment 1 of this Permit, as follows.

1. Maintain the integrity and effectiveness of the final cover, including making repairs to the cover, as necessary, to correct the effects of settling, subsidence, erosion, or other events;
2. Operate and maintain the groundwater monitoring system described in Section 1.4 of Attachment 1 of this Permit, and comply with all other applicable requirements of 40 C.F.R. Part 264 Subpart F;
3. Prevent run-on and run-off from eroding or otherwise damaging the final cover; and,
4. Protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of 40 C.F.R. § 264.309.

3.2.4. Security Requirements

In accordance with 40 C.F.R. § 264.117(b), the Permittees shall comply with all security requirements, as specified in Attachment 1 of this Permit, and as required by 40 C.F.R. § 264.14.

3.2.5. Future Land Use Requirements

The Permittees shall not allow any use of the CWL that will disturb the integrity of the final cover or the function of the unit's monitoring systems during the post-closure care period, as required by 40 C.F.R. § 264.117(c).

3.3. INSPECTION

The Permittees shall inspect the components, structures, and equipment at the CWL in accordance with the Inspection and Maintenance/Repair Schedule described in Section 1.9 of Attachment 1 of this Permit and shall record the results of each inspection as described in Section 1.10 of Permit Attachment 1, and in accordance with the inspection requirements of 40 C.F.R. § 264.15.

3.4. GROUNDWATER SAMPLING AND ANALYSIS PLAN

The Permittees shall conduct groundwater sampling and analysis following the procedures and requirements described in Attachments 1 and 2 of this Permit.

3.5. SOIL GAS SAMPLING AND ANALYSIS

The Permittees shall conduct soil-gas sampling and analysis following the procedures and requirements described in Attachments 1 and 3 of this Permit.

3.6. PERSONNEL TRAINING FOR POST-CLOSURE CARE PERIOD

The Permittees shall implement the CWL-specific personnel training program for the post-closure care period specified in Attachment 5 of this Permit, and as required by 40 C.F.R. § 264.16.

3.7. POST-CLOSURE PERMIT MODIFICATIONS

In accordance with 40 C.F.R. § 264.118(d), the Permittees must request a permit modification to authorize a change in this Permit. This request must be in accordance with applicable requirements of 40 C.F.R. Part 270 and 20.4.1.901 NMAC, and must include a copy of the proposed amended portions of this Permit for approval by the Department. The Permittees shall request a permit modification whenever changes in operating plans or facility design affect any part of this Permit, there is a change in the expected year of final closure, or other events occur during the post-closure care period of the CWL that affect this Permit. The Permittees must submit a written request for a permit modification to the Department at least sixty (60) days prior to the proposed change in CWL design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure care requirements contained in this Permit.

3.8. REFERENCES

Dinwiddie, R.S, September 24, 1997. Letter to M.J. Zamorski (U.S. Department of Energy), "Request for Supplemental Information: Background Concentrations Report, SNL/KAFB." New Mexico Environment Department.

Tharp, T.L, February 25, 1999. Memorandum to F.B. Nimick (Sandia National Laboratories/New Mexico), "Tritium Background Data Statistical Analysis for Site-Wide Surface Soils." Sandia National Laboratories/New Mexico.