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

HAND DELIVERED
10-4-96

Benito J. Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
2044 Galisteo St., Bldg.. A
P. O. Box 26110
Santa Fe, New Mexico 87505

Dear Mr. Garcia:

Subject: **Re-submittal of** "*Los Alamos National Laboratory (LANL) Response to Notice of Determination - Proposed Hazardous Waste Facility Permit Modification for Technical Area 50, Buildings 1 and 69, Technical Area 54 West, Building 38 Mixed Waste Container Storage Areas, EPA ID NO NM890010515-1.*

The purpose of this letter is to resubmit a copy of Los Alamos National Laboratory's response to the New Mexico Environment Department's Notice of Determination on LANL's proposed Hazardous Waste Facility Permit Modification for Technical Area 50, Building 1 and 69, Technical Area 54 West, Building 38 Mixed Waste container Storage Areas. In addition LANL is providing you with a copy of the signed Certified Mail return receipt (#Z308 004 093) and a check, replacing the lost check, #870098 in the amount of $46,500.00.

If there are any questions on this matter, please contact me at (505) 665-5042.

Sincerely,

for H. L. "Jody" Plum
Office of Environment and Projects

cc: w/enclosures
Barbara Hoditscheck, NMED/HRMB
Jack Ellvinger, LANL, ESH-19, MS K-490
Hortense Haynes, LAAO/DOE, Office of General Counsel
Joe Vozella, LAAMEP

11383

LOS ALAMOS NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO 87545

SEE OTHER SIDE FOR EXPLANATION OF CODE

CHECK NUMBER 870098

OUR ORDER NO.	INVOICE DATE	INVOICE NUMBER	CODE	INVOICE AMOUNT	CASH DISCOUNT	NET AMOUNT
8B7A M348 0000 0000	10-3-96	ACT7116		46,500.00		46,500.00
ACT070860						

LOS ALAMOS NATIONAL BANK
LOS ALAMOS, NEW MEXICO 87544

LOS ALAMOS NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA
P.O. BOX 1663, MS-P240
LOS ALAMOS, NEW MEXICO 87545

95-101 / 1070 **870098**
CHECK NO.

PAY TO THE ORDER OF | MO. DAY YR: 10-3-96 | **********46,500 DOLLARS 00 CENTS | PAY EXACTLY: $46,500.00**

NMED HAZARDOUS WASTE PERMIT FEES
2044 GALISTEO ST.
SANTA FE, NM 87502

PLEASE CASH PROMPTLY
SUBJECT TO CANCELLATION
NINETY (90) DAYS AFTER DATE

⑈870098⑈ ⑆107001012⑆ 00 685259⑈01

Memo for Record:

Department of Energy

Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

SEP - 6 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

CONCURRENCES
RTG SYMBOL
NAME
DATE

LAAMEP:sc

JPlum for
09/06/96

Benito J. Garcia, Bureau Chief
Hazardous and Radioactive Materials Bureau
2044 Galisteo St., Bldg. A
P. O. Box 26110
Santa Fe, New Mexico 87505

Dear Mr. Garcia:

Subject: Los Alamos National Laboratory (LANL) Response to Notice of Determination - Proposed Hazardous Waste Facility Permit Modification for Technical Area 50, Buildings 1 and 69, Technical Area 54 West, Building 38 Mixed Waste Container Storage Areas, EPA ID No. NM890010515-1

The purpose of this letter is to submit the response by the Department of Energy (DOE) and the University of California (UC) to the Notice of Determination (NODET) issued by the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED) on July 31, 1996, and received by DOE on August 6, 1996. The NODET was developed by NMED following the review of the LANL Proposed Hazardous Waste Facility Permit Modification, Technical Area 50, Building 1; Rooms 35, 36, and 38/38A Container Storage Areas, Building 69; Indoor and Outdoor Container Storage Areas, Technical Area 54 West Building 38; High Bay, Low Bay, Loading Dock, and Outdoor Container Storage Areas, submitted December 22, 1995.

The NODET contains three general comments, a technical comment (Attachment A), an administrative deficiency comment (Attachment B), and a permit fee worksheet. This NODET Response consists of responses to each of the comments and enclosed revised text pages to the original permit revision text as described in the comment responses. The permit application review fee requested by the NODET is also discussed and included in this response.

General Comments

1. Review of the appropriate waste analysis plan is withheld by NMED until DOE/LANL has submitted a response to the WAP Notice of Deficiency which is due to NMED by the end of June, 1996.

DOE/UC submitted the Transuranic Mixed Waste Analysis Plan (WAP) Notice of Deficiency Response to NMED on July 12, 1996, an extension approved by HRMB by letter on July 9, 1996.

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7 308 004 093

2. *All references to the Batch Waste Treatment Unit which was closed under RCRA will be removed from the Permit Module III.*

A Class 1 Permit Modification including an item to remove Batch Waste Treatment Unit references from the text of the LANL Hazardous Waste Facility Permit was originally proposed and submitted to NMED on December 13, 1994. Subsequent LANL permit text revision submittals have contained the original references pending final approval of the modification by NMED. Once this modification is approved, it is assumed that NMED will strike all such references in Permit Module III and that LANL will delete such references from future permit modification or application submittals.

3. *Module III Page 3 Section III.B.3 Paragraph 1 Line 4. Reference is made to New Mexico Administrative Code. 20 NMAC 4.1 is not New Mexico Administrative Code but New Mexico Annotated Code.*

The use of the reference to the New Mexico Administrative Code is based on the discussion in the *New Mexico Register*, Vol. VI, No. 12, June 30, 1995, regarding New Mexico Commission of Public Records amended rule filing requirements. Section 7, "Definitions," Item 7.11, states "NMAC means the New Mexico Administrative Code which is the organizing structure for rules filed by New Mexico State agencies. The NMAC is also the body of filed rules and the published versions thereof. The NMAC is structured by Title, Chapter, and Part."

Attachment A, Technical Comments

Sections E.10.3.3, E.11.3.3, E.12.3.3, Decontamination Verification. With reference to the criteria for which successful decontamination is defined, the following sentence within the closure plan should be revised: "Detectable hazardous waste or constituent concentrations from the container storage activities do not significantly decrease after several washdowns". If after several washdowns, the concentrations of hazardous waste do not decrease, then appropriate disposal options should be considered. The conclusion that successful decontamination has occurred is technically inappropriate. This section should be clarified to provide for the above condition.

The specific washdown decontamination verification criteria referenced by this comment is consistent with the policy established by the U.S. Environmental Protection Agency (EPA). Clean closure that allows hazardous constituents to remain in place is allowable in accordance with and subject to provisions under current Federal and New Mexico regulations. As found in the final rule for "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities", Federal Register(FR), 52 FR 8704, March 19, 1987, EPA set "forth its interpretation of the regulatory requirements applying to closure of storage facilities regulated under both permits and interim status" (52 FR 8704). While the type of storage unit addressed by this final rule is surface impoundments, EPA's language clearly demonstrates that EPA intended the discussion to more broadly express general policy.

As part of its discussion regarding the interpretation of the "remove and decontaminate" clean closure standard language in RCRA Parts 264 and 265, EPA stated that it "recognizes that at certain sites limited quantities of hazardous constituents might remain

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in the subsoil and yet present only insignificant risks to human health and the environment" (52 FR 8706). EPA reiterated this position throughout that preamble and in numerous other documents including, but not limited to, the closure by removal and risk from residuals in soil (52 FR 8713) discussion sections of the Proposed Amendments for Landfill, Surface Impoundment, and Waste Pile Closures, 52 FR 8712, March 19, 1987; in the Office of Solid Waste and Emergency Response (OSWER) Policy Directive #9476.00-18 "Guidance on Demonstrating Equivalence of Part 265 Clean Closure with Part 264 Requirements," May 12, 1989; and in the OSWER Directive #9476.00-16, "Effective Dates for Characteristic and Listed Wastes per March 19, 1987 Clean Closure Regulation," April 1, 1988. Subsequent to the publication of these documents, EPA established that post-closure care was unnecessary if no hazardous waste or waste residue remains at the site (53 FR 9944). Waste residue was defined to be hazardous constituents present in the environment at or above levels of human health or environmental concern. For the purposes of this discussion, it follows that if what is defined as waste residue no longer remains, then clean closure has been achieved even though hazardous constituents may continue to be present.

As previously mentioned, EPA's policy discussion was focused on the technical clean closure requirements of surface impoundments. While the requirements focused on land based waste management units that presumably may have had waste in direct contact with the soil and thereby create a potential threat to the environment, clean closure of container storage units represents a situation less likely to present such a threat because waste is normally managed in contained packages. The conservative application of these standards to a container storage area represents an adequate and sufficient if not more protective approach.

The March 19, 1987 closure discussion states that "To provide the necessary level of assurance, the Agency will require owners or operators to remove all waste and contaminated liners and to demonstrate that any hazardous constituents left in the subsoils will not cause unacceptable risks to human health or the environment" (52 FR 8706). Further guidance on criteria for such a closure demonstration is then presented including proposing provisions for documentation that unremoved contaminants will not impact environmental media, determining that direct exposure through predictable pathways will not result in a threat to human health or the environment, and submitting data for regulatory agency review where formally recommended exposure limits are not available.

The validity of this decontamination criteria has been discussed with HRMB and DOE Oversight Bureau staff. The last such meeting was held on May 21, 1996, during which EPA preamble and policy directives were provided by LANL representatives. Based on the outcome of that discussion, the NODET comment is interpreted to mean that further detail regarding the provisional nature of the particular decontamination criteria at issue will provide the necessary degree of technically appropriate clarification. Therefore, the following language (bold text) has been added to the decontamination criteria item in Sections E.10.3.3, E.11.3.3, and E.12.3.3 of the revised permit text submittal:

- "Detectable hazardous waste or constituent concentrations from container storage activities do not significantly decrease after several washdowns. **In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED."**

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Attachment B, Administrative Deficiencies

1. Reference is made to TA-50 Building 1 Room 102 and 103. NMED does not have a record of these rooms being permitted or in the January 1991 Part A to obtain Interim Status for Mixed Waste. NMED has interpreted the references in the text to be an inadvertent omission from the application. DOE/LANL must address this omission in their response to this NOD. Should these two rooms be added to the permit modification being processed complete documentation is required within the time allowed for response to this NOD.

The reference to Rooms 102 and 103 contained in the revised text to Module III of the proposed permit modification is for the rooms that make up the Indoor Container Storage Area at Building 69 and does not constitute a request for additional storage areas. As shown in Figure 12 of the December 22, 1995 permit text revision submittal, the proposed storage area consists of the two rooms in an L shaped configuration. The designation of the two rooms is based on a difference in the time of construction rather than on a physical distinction such as a partition or wall between them. Rooms 103 and the vehicle airlock entrance room identified in Figure 12 were added to the existing building in 1985 according to facility representatives. The 1985 expansion was to provide physical room for the management of standard waste boxes in front of the existing glovebox unit in Building 69.

The container storage capacity for the combined rooms has not been increased from the January 25, 1991 Part A (1,500 gallons). The extension of the described storage area into Room 102 is to provide container staging areas associated with the glovebox waste characterization operations as described in Section 4 of the "RCRA Permit Modification Request", Final Draft, September 29, 1995, provided to HRMB by DOE/UC.

The following language (bold text) has been added to Module III, Section A.3.b to clarify this relationship:

> "b. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-69, **Indoor Container Storage Area (**Rooms 102 and 103**)**, and at the Building 50-69 Outdoor Container Storage Area(CSA)."

This will align the language with the comments presently contained in other parts of the revised permit text and clarify this relationship. Examples of other references are:

> Module III, Section III.C.3.h. "No more than 1,500 gallons of waste shall be stored at the Building 50-69 Indoor CSA (Rooms 102 and 103)..."
>
> Attachment E, Section E.11, page 1, paragraph 2. "The WCRRF Indoor CSA consists of Rooms 102 and 103."
>
> Attachment F, Section F.2.1. Specific Storage Areas "...the TA-50-69 indoor and outdoor storage units (two total)..."
>
> Attachment F, Section F.2.1.7 TA-50-69 Indoor and Outdoor Container Storage Areas "

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As a related issue, the two calculated permit fee items for Operating Unit 4 "TA-50 Building 69 Room 102" and Operating Unit 5 "TA-50 Building 69 Room 103" are redundant with the calculated fee for Operating Unit 6 "TA-50 Building 69, Indoor Storage Unit" as listed in Attachment C, Permit Fee Worksheet of the NODET. Therefore, the required permit fee included with this response has been adjusted as discussed with HRMB representatives during the monthly scheduled permit issues meeting that occurred on August 21, 1996, and as confirmed by telephone conversation on August 28, 1996. The enclosed fee is $46,500 (the previous fee of $50,000 minus $3,500 for the redundant units). The revised permit fee is being submitted at this point to facilitate the time frame for review of the permit modification and to meet the requirements of the NODET. If this fee amount is not approved by NMED, please contact this office as soon as possible for resolution of this issue so that the project schedule is not affected.

A certification statement is provided for the revisions presented in this submittal. Electronic copies of the revised sections of the permit text modification submittal have also been included. I hope this response has addressed your concerns. If you should have any questions, please feel free to contact me at (505) 665-5042.

Sincerely,

ORIGINAL SIGNED BY
JONATHAN E. MACK

H. L. "Jody" Plum
Office of Environment and Projects

LAAMEP:6JP-016

Enclosures

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Los Alamos
NATIONAL LABORATORY

Environment, Safety And Health Division
Los Alamos, New Mexico 87545
FAX (505) 665-3811

Date: September 5, 1996
In Reply Refer To: ESH-DO:96-0312
Mail Stop: K491
Telephone: (505) 667-4218

Joseph C. Vozella, Chief
Environment, Safety and Health Branch
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, New Mexico 87544-5000

Dear Mr. Vozella:

SUBJECT: RESPONSE TO NOTICE OF DETERMINATION: PROPOSED HAZARDOUS WASTE FACILITY PERMIT MODIFICATION FOR TECHNICAL AREA 50, BUILDINGS 1 AND 69, TECHNICAL AREA 54 WEST, BUILDING 38 MIXED WASTE CONTAINER STORAGE AREAS

Enclosed is a draft Notice of Determination (NODET) Response to the New Mexico Environment Department (NMED) for concurrence and signature by G. Thomas Todd, Area Manager. The NODET was issued by the Hazardous and Radioactive Materials Bureau of NMED on July 31, 1996, and received by the Los Alamos Area Office of the Department of Energy on August 6, 1996. The NODET requests additional information and a permit review fee necessary for NMED's review of a proposed Class III permit modification to the Los Alamos National Laboratory Hazardous Waste Facility Permit for nine mixed waste container storage areas.

LANL has proposed nine new container storage areas to be used for short term staging of legacy and currently generated transuranic mixed waste supporting the waste characterization activities at the Waste Characterization, Reduction and Repackaging Facility, Decontamination Facility, and the Radioassay and Nondestructive Testing Facility. The NODET specifically addresses the "Proposed Hazardous Waste Facility Permit Modification, Technical Area 50, Building 1; Rooms 35, 36, and 38/38A Container Storage Areas, Building 69; Indoor and Outdoor Container Storage Areas, Technical Area 54 West Building 38; High Bay, Low Bay, Loading Dock, and Outdoor Container Storage Areas," submitted to NMED on December 22, 1996.

The response consists of answers to five administrative and technical comments or requests contained in the NODET and transmits the enclosed permit review fee check for $46,500. The submittal date required by the NODET is September 6, 1996.

The response package includes the responses to comments, attached page changeout revisions to the original proposed permit modification including text revisions as suggested

by the NODET, an electronic version of the revised text and the permit fee check. to be submitted to NMED. The NODET Response was prepared by Gian Bacigalupa of the Hazardous and Solid Waste Group (ESH-19, at 667-1579), in direct cooperation and coordination with Chemical Science and Technology Division project personnel.

Sincerely,

for DJE

Dennis J. Erickson, Director
Environment, Safety and Health Division

Enclosures: a/s

Cy: J. Harper, CST-7, MS E516
D. Bodenstein, CST-7, MS E516
D. Taggart, CST-7, MS J594
M. Romero, CST-7, MS E520
L. Abercrombie, ESH-19, MS K490
G. Bacigalupa, ESH-19, MS K490
ESH-DO File, MS K491
ESH-19 (960321.GB), MS K490
CIC-10, MS A150
HSW Circ. File

Revised Text
Changeout Pages
Proposed Hazardous Waste Facility Permit Modification

Los Alamos National Laboratory

Technical Area 50
Building 1; Rooms 35, 36, and 38/38A Container Storage Areas
Building 69; Indoor and Outdoor Container Storage Areas

Technical Area 54 West
Building 38; High Bay, Low Bay, Loading Dock, and Outdoor Container Storage Areas

Originally submitted to NMED
December 22, 1995

c. Building 50-37. Containers may be stored within storage room 117 of the Controlled Air incinerator as shown in Figure 4.

d. Containers containing free liquids may be stored in the modular storage buildings, Model 22 or equivalent, Facility Numbers 50-114, 50-137 and 50-138, located as shown in Figure III-2.

3. Technical Area 50. The Permittee may store for more than ninety days hazardous and/or mixed wastes in containers only in the following designated storage areas:

a. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-1, Rooms 35, 36, and 38/38A. Containers containing suspect or known free liquids may be stored on self-containment pallets in Building 50-1, Rooms 35 and 38/38A. Containers will not be stacked at these storage areas. See Figure 11.

b. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-69, Indoor Container Storage Area (Rooms 102 and 103), and at the Building 50-69 Outdoor Container Storage Area (CSA). Containers containing suspect or known free liquids may be stored on self-containment pallets in Building 50-69, Rooms 102 and 103, and at the Building 50-69 Outdoor CSA. Containers will not be stacked at the Building 50-69, Rooms 102 and 103, storage areas. Containers may be stacked two high at the Building 50-69 Outdoor CSA. See Figure 12.

4. Technical Area 54 West. The Permittee may store for more than ninety days mixed wastes in containers only in the following designated storage areas.

a. Building 54-38 Low Bay CSA. Containers not containing free liquids may be stored on pallets or dollies in the Low Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the Low Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

b. Building 54-38 High Bay CSA. Containers not containing free liquids may be stored on pallets or dollies or otherwise elevated in the High Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the High Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

c. Building 54-38 Loading Dock CSA. Containers may be stored on self-containment pallets in the Loading Dock CSA. Containers will not be stacked at this storage area. See Figure 13.

d. Building 54-38 Outdoor CSA. Drums of waste may be stored on self-containment pallets in the Outdoor CSA. Other types of waste containers that are elevated by design may be stored in the Outdoor CSA. Containers will not be stacked at this storage area. See Figure 13.

c. Building 50-37. Containers may be stored within storage room 117 of the Controlled Air incinerator as shown in Figure 4.

d. Containers containing free liquids may be stored in the modular storage buildings, Model 22 or equivalent, Facility Numbers 50-114, 50-137 and 50-138, located as shown in Figure III-2.

3. Technical Area 50 The Permittee may store for more than ninety days hazardous and/or mixed wastes in containers only in the following designated storage areas:

a. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-1, Rooms 35, 36, and 38/38A. Containers containing suspect or known free liquids may be stored on self-containment pallets in Building 50-1, Rooms 35 and 38/38A. Containers will not be stacked at these storage areas. See Figure 11.

b. Containers not containing free liquids may be stored on pallets, dollies, or otherwise elevated in Building 50-69, Indoor Container Storage Area (Rooms 102 and 103), and at the Building 50-69 Outdoor Container Storage Area (CSA). Containers containing suspect or known free liquids may be stored on self-containment pallets in Building 50-69, Rooms 102 and 103, and at the Building 50-69 Outdoor CSA. Containers will not be stacked at the Building 50-69, Rooms 102 and 103, storage areas. Containers may be stacked two high at the Building 50-69 Outdoor CSA. See Figure 12.

4. Technical Area 54 West The Permittee may store for more than ninety days mixed wastes in containers only in the following designated storage areas:

a. Building 54-38 Low Bay CSA. Containers not containing free liquids may be stored on pallets or dollies in the Low Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the Low Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

b. Building 54-38 High Bay CSA. Containers not containing free liquids may be stored on pallets or dollies or otherwise elevated in the High Bay CSA. Containers containing suspect or known liquids may be stored on self-containment pallets in the High Bay CSA. Containers will not be stacked at this storage area. See Figure 13.

c. Building 54-38 Loading Dock CSA. Containers may be stored on self-containment pallets in the Loading Dock CSA. Containers will not be stacked at this storage area. See Figure 13.

d. Building 54-38 Outdoor CSA. Drums of waste may be stored on self-containment pallets in the Outdoor CSA. Other types of waste containers that are elevated by design may be stored in the Outdoor CSA. Containers will not be stacked at this storage area. See Figure 13.

E.10.3.3 Decontamination Verification

Sufficient sampling and analysis will be required to demonstrate that hazardous or mixed waste residue is not present at the site after closure. Two samples of clean wash water solution squeezed from mops and/or sponges prior to use will be collected before initial washdown of the CSAA. The samples will be analyzed for parameters listed in Table E.10-1 to provide baseline data for decontamination verification. Analytical procedures will conform to methods found in the most current version of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). Used washdown solutions will also be analyzed for the parameters listed in Table E.10-1. Washdown solutions will be considered contaminated if the used wash water solution shows a significant increase (i.e. determined using statistical methods defined in SW-846) in the analytical parameters over the clean wash water solution. If subsequent washdowns are deemed necessary, an additional sample of clean wash water solution squeezed from mops and/or sponges prior to use will be taken for each additional washdown event.

Existing background soil data for LA-50 may also be used to demonstrate that hazardous or mixed waste residue resulting from storage activities is not present at the site after closure. A comparison of closure sampling data to existing background soil data will be used to establish the source of any hazardous waste or constituents present in the soil if further excavation of the underlying foundation or soil is found to be necessary. If the data comparison indicates that contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been met successfully.

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are removed to statistically significant levels based on baseline concentrations in the clean wash water or established background soil data.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities do not significantly decrease after several washdowns. In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED.

E.10.4 Closure Schedule

Closure will not commence until all of the wastes have been removed from the CSA scheduled to be closed. Closure activities will begin in accordance with the approved closure plan, as required by the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V, 264.113(a), revised November 1, 1995, within 90 days after final receipt of waste at the CSA. This timeframe will be met as long as facilities are available for treatment and/or disposal of these wastes. In the event that closure activities cannot be completed at the CSA within 90 days, LANL will notify the Secretary of the NMED in accordance with the extension requirements cited in 20 NMAC 4.1, Subpart V, 264.113(a).

E.10.3.3 Decontamination Verification

Sufficient sampling and analysis will be required to demonstrate that hazardous or mixed waste residue is not present at the site after closure. Two samples of clean wash water solution squeezed from mops and/or sponges prior to use will be collected before initial washdown of the CSAs. The samples will be analyzed for parameters listed in Table E.10-1 to provide baseline data for decontamination verification. Analytical procedures will conform to methods found in the most current version of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). Used washdown solutions will also be analyzed for the parameters listed in Table E.10-1. Washdown solutions will be considered contaminated if the used wash water solution shows a significant increase (i.e., determined using statistical methods defined in SW 846) in the analytical parameters over the clean wash water solution. If subsequent washdowns are deemed necessary, an additional sample of clean wash water solution squeezed from mops and/or sponges prior to use will be taken for each additional washdown event.

Existing background soil data for TA-50 may also be used to demonstrate that hazardous or mixed waste residue resulting from storage activities is not present at the site after closure. A comparison of closure sampling data to existing background soil data will be used to establish the source of any hazardous waste or constituents present in the soil if further excavation of the underlying foundation or soil is found to be necessary. If the data comparison indicates that contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been met successfully.

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are removed to statistically significant levels based on baseline concentrations in the clean wash water or established background soil data.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities do not significantly decrease after several washdowns. In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED.

E.10.4 Closure Schedule

Closure will not commence until all of the wastes have been removed from the CSA scheduled to be closed. Closure activities will begin in accordance with the approved closure plan, as required by the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V, 264.113(a), revised November 1, 1995, within 90 days after final receipt of waste at the CSA. This timeframe will be met as long as facilities are available for treatment and/or disposal of these wastes. In the event that closure activities cannot be completed at the CSA within 90 days, LANL will notify the Secretary of the NMED in accordance with the extension requirements cited in 20 NMAC 4.1, Subpart V, 264.113(a).

The north, west, and east boundaries of the WCRR Outdoor CSA are not situated near soil areas. After washdown activities at the CSA are complete, a statistically representative number of small area washdown samples will be collected from the asphalt surrounding the pad in a manner similar to the above soil samples. One-foot-square areas approximately 3 feet from the boundary of the CSA will be wiped down. The wash water will be collected and analyzed for the parameters listed in Table E.11-1. The baseline concentration asphalt leachate samples or information described above will also apply for these samples. The degree of contamination if present will be assessed for these areas. If the samples do not exhibit contamination, the area will be considered to be decontaminated. If contamination is found in these samples as a result of container storage on the pad, the asphalt area around the CSA may be subject to the same wash down or removal process described above for the asphalt inside the CSA.

E.11.3.3 Decontamination Verification

Sufficient sampling and analysis will be required to demonstrate that hazardous or mixed waste residue is not present at the site after closure. Two samples of clean wash water solution squeezed from mops and/or sponges prior to use will be collected before initial washdown of the CSA. The samples will be analyzed for parameters listed in Table E.11-1 to provide baseline data for decontamination verification. Analytical procedures will conform to methods found in the most current version of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). Used washdown solutions will also be analyzed for the parameters listed in Table E.11-1. Washdown solutions will be considered contaminated if the used wash water solution shows a significant increase (i.e., determined using statistical methods defined in SW-846) in the analytical parameters over the clean wash water solution. If subsequent washdowns are deemed necessary, an additional sample of clean wash water solution squeezed from mops and/or sponges prior to use will be taken for each additional washdown event.

Existing background soil data for TA-50-69 may also be used to demonstrate that hazardous or mixed waste residue resulting from storage activities is not present at the site after closure. A comparison of closure sampling data to existing background soil data will be used to establish the nature of any hazardous waste or constituents present in the soil. If the data comparison indicates that contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been successfully

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are removed to statistically significant levels based on baseline concentrations in the clean wash water or established background soil data.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities do not significantly decrease after several washdowns. In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED.

The north, west, and east boundaries of the AVGRIF Dinkbar CSA are not situated near soil areas. After washdown activities at the CSA are complete, a statistically representative number of small area washdown samples will be collected from the asphalt surrounding the pad in a manner similar to the above soil samples. One-foot-square areas approximately 5 feet from the boundary of the CSA will be wiped down. The wash water will be collected and analyzed for the parameters listed in Table E.11-1. The baseline concentration asphalt leachate samples or information described above will also apply for these samples. The degree of contamination, if present, will be assessed for these areas. If the samples do not exhibit contamination, the area will be considered to be decontaminated. If contamination is found in these samples as a result of container storage, then the asphalt area around the CSA may be subject to the same wash down/decontamination process described above for the asphalt inside the CSA.

E.11.3.3 Decontamination Verification

Sufficient sampling and analysis will be required to demonstrate that hazardous or mixed waste residue is not present at the site after closure. Two samples of clean wash water solution squeezed from mops and/or sponges prior to use will be collected before initial washdown of the CSAs. The samples will be analyzed for parameters listed in Table E.11-1 to provide baseline data for decontamination verification. Analytical procedures will conform to methods found in the most current version of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846). Used washdown solutions will also be analyzed for the parameters listed in Table E.11-1. Washdown solutions will be considered contaminated if the wash water solution shows a significant increase (as determined using statistical methods defined in SW-846) in the analytical parameters over the clean wash water solution. If subsequent washdowns are deemed necessary, an additional sample of clean wash water solution collected from mops and/or sponges prior to use will be taken for each additional washdown event.

Existing background soil data for TWSI-VI may also be used to demonstrate that hazardous or mixed waste residue resulting from the container storage is not present at the site after closure. A comparison of closure sampling data to existing background soil data will be used to establish the source of any hazardous waste or constituents present in the soil. If the data comparison indicates that contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been successfully.

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are removed to statistically significant levels based on baseline concentrations in the clean wash water or established background soil data.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities do not significantly decrease after several washdowns. In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED.

contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been met successfully:

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below statistically significant levels based on regulatory concentrations in Section 9 of the soil screening levels or background levels.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities are not significantly different than those of adjacent areas. In no event, hazardous constituents will be removed to a level that poses an unacceptable risk as mutually agreed upon with NMED.

E.12.4 Closure Schedule

Closure will not commence until all of the waste have been removed from the CSA scheduled to be closed. Closure activities will begin in accordance with the approved closure plan as required by the New Mexico Administrative Code, Title 20, Chapter 4, Part 1 (20 NMAC 4.1), Subpart V, 264.113(a) revised November 1, 1995, within 90 days after final receipt of waste at the CSA. This timeframe will be met as long as facilities are available for treatment and/or disposal of these wastes. In the event that closure activities cannot be completed at the CSA within 90 days, LANL will notify the Secretary of the NMED in accordance with the extension requirements cited in 20 NMAC 4.1, Subpart V, 264.113(e), revised November 1, 1995. Closure activities and reporting requirements will be completed within 180 days of the receipt of the final volume of waste at the waste management area to be closed. Closure will be conducted in accordance with the specifications presented in Table E.12-2. In the event that closure of a CSA is prevented from proceeding according to schedule, LANL will notify the Secretary of the NMED in accordance with extension request requirements in 20 NMAC 4.1, Subpart V, 264.113(e), revised November 1, 1995. In addition, the demonstrations in 20 NMAC 4.1, Subpart V, 264.113(d)(1) and (b)(1), revised November 1, 1995, will be made in accordance with 20 NMAC 4.1, Subpart V, 264.113(e), revised November 1, 1995.

E.12.5 Closure Certification

Within 60 days after completion of closure activities in each of the CSAs, the U.S. Department of Energy (DOE) will submit to the Secretary of the NMED, via certified mail, a certification that the area has been closed in accordance with the specifications of the closure plans. The certification will be attested to by an independent registered professional engineer and will be signed by the appropriate DOE and LANL officials, in accordance with 20 NMAC 4.1, Subpart V, 264.115, revised November 1, 1995. Documentation supporting the independent registered engineer's certification will be furnished to the Secretary of the NMED with the original certification. A copy of the certification and supporting

contamination is from container storage activities, additional contaminated soil excavations will be performed until at least one of the decontamination criteria has been met successfully.

Successful decontamination meets one of the following criteria:

- No detectable hazardous waste or constituents from container storage activities are found in the final sample.
- Detectable hazardous waste or constituents from container storage activities in the final sample are removed to attainable specifiable levels based on baseline concentrations in the clean wash water or established background soil data.
- Detectable hazardous waste or constituents from container storage activities in the final sample are at or below levels negotiated with the New Mexico Environment Department (NMED).
- Detectable hazardous waste or constituent concentrations from container storage activities do not significantly increase after several washwaters. In such an event, hazardous constituents will be allowed to remain that pose an acceptable risk as mutually agreed upon with NMED.

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E.12.5 Closure Certification

Within 60 days after completion of closure activities for each of the CSAs, the U.S. Department of Energy (DOE) will submit to the Secretary of the NMED, via certified mail, a certification that the area has been closed in accordance with the specifications of the closure plan. The certification will be attested to by an independent, registered professional engineer and will be signed by the appropriate DOE and LANL officials in accordance with 20 NMAC 4.1, Subpart V, 264.115, revised November 1, 1995. Documentation supporting the independent registered engineer's certification will be furnished to the Secretary of the NMED with the original certification. A copy of the certification and supporting

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UNIVERSITY OF CALIFORNIA
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SENDER:

- Complete items 1 and/or 2 for additional services.
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- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
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