



GARY E. JOHNSON  
GOVERNOR

**State of New Mexico**  
**ENVIRONMENT DEPARTMENT**  
**Hazardous & Radioactive Materials Bureau**  
**2044 Galisteo Street**  
**P.O. Box 26110**  
**Santa Fe, New Mexico 87502**  
**(505) 827-1557**  
**Fax (505) 827-1544**



PETER MAGGIORE  
SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

October 21, 1998

Mr. David A. Gurule, Area Manager  
Los Alamos Area Office  
Department of Energy  
528 35th Street  
Los Alamos, New Mexico 87544

Dr. John C. Browne, Director  
Los Alamos National Laboratory  
P.O. Box 1663, MS A100  
Los Alamos, New Mexico 87545

**RE: Proposal to Approve: No Further Action for 99 Solid Waste Management Units (SWMUs) at Los Alamos National Laboratory (LANL)**

Dear Mr. Gurule and Dr. Browne:

The New Mexico Environment Department (NMED) has issued a Public Notice with intent to approve the Class III permit modification requested by the Department of Energy (DOE)/LANL. This modification consists of approval of No Further Action (NFA) status for ninety-nine (99) Solid Waste Management Units (SWMUs) at Los Alamos National Laboratory and deletion of these SWMUs from Tables A, B and C of the Resource Conservation and Recovery Act (RCRA) permit issued to the DOE/LANL. These 99 SWMUs were contained in the submittals *Request for Permit Modification: Units Proposed for No Further Action* submitted by DOE/LANL, dated March and September 1995 and September 1996. These requests included 190 SWMUs to be considered for removal from the permit. NMED has approved and removed 3 SWMUs from LANL's permit. The 99 proposed SWMUs for approval are identified in Attachment A.

A public notice of this proposed action is scheduled for publication in the **October 21, 1998** issue of the **Albuquerque Journal, The New Mexican, El Hispano News, and the Los Alamos Monitor**. The 45-day public comment period will extend from **October 21, 1998** through **December 4, 1998**.



15745

TL

MSW 10/21/98 G/P 98

Mr. Gurule and Dr. Browne  
October 21, 1998  
Page 2

Enclosed for your review are a copy of Tables A, B and C showing proposed changes in redline and strikeout and a copy of Tables A, B and C as they would appear after final approval. Also enclosed are copies of the public notice and fact sheet sent to persons and organizations on the LANL mailing list, and the statement of basis which provides additional information for the public about this action. These documents will also be available for public review at the NMED Hazardous and Radioactive Materials Bureau office in Santa Fe and at the LANL Community Relations Reading Room in Los Alamos. Procedures for submitting official comments are contained in the fact sheet.

Please call John Kieling of my staff at 827-1558 if you have any comments or questions.

Sincerely,



Ed Kelley, Ph.D., Director  
Water and Waste Management Division  
New Mexico Environment Department

EK:jek(HRMB)

enclosures

cc: T. Baca, LANL EM-DO, MS J591  
J. Canepa, EM/ER, MS M992  
J. Davis, NMED SWQB  
B. Garcia, NMED HRMB  
J. Kieling, NMED HRMB  
M. Kirsch, EM/ER, MS M992  
M. Leavitt, NMED GWQB  
H. LeDoux, DOE LAAO, MS A316  
D. McInroy, LANL EM/ER, MS M992  
D. Neleigh, EPA, 6PD-N  
J. Parker, NMED DOE OB  
T. Taylor, DOE LAAO, MS A316  
S. Yanicak, NMED DOE OB, MS J993  
File: HSWA LANL G/P 98 and RED LANL G/P 98  
Track: LANL, 10/21/98, DOE/LANL, NMED/WWMD/Kelley, RE, File

## ATTACHMENT A

The ninety-nine (99) sites proposed for NFA in this action and justification for removal of these sites from LANL's permit are:

0-005	7-003(d)	16-010(g)
1-001(h)	8-003(b)	16-012(a)
1-001(i)	8-003(c)	16-012(b)
1-001(j)	8-006(b)	16-012(c)
1-001(k)	8-007	16-012(d)
1-001(l)	9-003(c)	16-012(e)
1-001(n)	9-003(f)	16-012(f)
3-001(a)	9-005(b)	16-012(g)
3-001(b)	9-005(c)	16-012(h)
3-001(c)	9-005(e)	16-012(i)
3-002(b)	9-005(f)	16-012(j)
3-009(b)	9-005(h)	16-012(k)
3-009(e)	9-007	16-012(l)
3-009(f)	11-007	16-012(m)
3-009(h)	14-004(b)	16-012(n)
3-012(a)	15-014(m)	16-012(o)
3-018	16-005(f)	16-012(p)
3-020(a)	16-005(i)	16-012(q)
3-035(a)	16-005(o)	16-012(r)
3-035(b)	16-006(b)	16-012(s)
3-039(a)	16-006(f)	16-012(t)
7-003(c)	16-006(i)	16-012(u)

Mr. Gurule and Dr. Browne  
October 21, 1998  
Page 4

16-012(v)	16-034(g)	46-008(c)
16-012(w)	21-012(a)	52-001(a)
16-012(x)	21-024(m)	52-001(b)
16-012(y)	21-027(b)	52-001(c)
16-012(z)	33-004(e)	52-002(b)
16-025(c)	33-004(f)	52-002(c)
16-025(g2)	35-003(i)	52-002(d)
16-026(i2)	36-003(c)	52-002(f)
16-031(g)	39-003	53-007(b)
16-032(d)	39-006(b)	54-001(c)
16-032(e)	40-001(a)	54-013(a)

Permit  
10/21/98

## STATEMENT OF BASIS

**Approval of No Further Action  
for Ninety-nine (99) Solid Waste Management Units (SWMUs)  
U.S. Department of Energy  
Los Alamos National Laboratory  
Los Alamos, New Mexico  
RCRA Permit No. NM0890010515**

The New Mexico Environment Department (NMED) has made a final determination to approve the US Department of Energy/Los Alamos National Laboratory (DOE/LANL) request to remove ninety-nine (99) Solid Waste Management Units (SWMUs) from the Hazardous and Solid Waste Amendments (HSWA) Corrective Action module. This module is part of the DOE/LANL Resource Conservation and Recovery Act (RCRA) permit, No. NM0890010515.

### A. FACILITY DESCRIPTION

LANL is 43 square miles in size and is located adjacent to the town of Los Alamos, New Mexico. The facility is located on a mesa and canyon landscape with relief averaging about 300 feet from the tops of the mesa to the canyon bottoms. The majority of the building and technical areas (TAs) are located on the mesa tops.

LANL has been in operation since the early 1940s. It is government owned (by the Department of Energy) and contractor operated (by the University of California). LANL is the site of research and development for the first atomic bomb. Throughout its history, LANL has conducted experimental research on nuclear weapons and explosive materials. Disposal activities started in the early 1940's and continue to present day.

### B. HISTORY OF INVESTIGATION

The U.S. Environmental Protection Agency (EPA) issued a Hazardous and Solid Waste Amendment (HSWA) Module VIII to the RCRA Hazardous Waste Facility permit on March 8, 1990. The effective date for the permit module was May 23, 1990. The original RCRA permit required investigation of 603 SWMUs. Additional SWMUs have been added to the RCRA permit by other permit modifications comprising a total of approximately 1000 SWMUs requiring investigation under the RCRA corrective action process. On January 2, 1996, NMED received authorization for Corrective Action and is consequently the Administrative Authority (AA) for this action.

On March 27, 1995, DOE/LANL submitted a request to remove 89 SWMUs from its HSWA corrective action module. NMED reviewed the request and determined that 59 of the 89 SWMUs are appropriate for no further action (NFA). The remaining 30 SWMUs will be the subject of further study or investigation.

On September 28, 1995, DOE/LANL submitted an additional request to remove 59 SWMUs from its HSWA corrective action module. NMED reviewed the request and determined that 38 of the 59 SWMUs are appropriate for NFA. The remaining 21 SWMUs will be the subject of further study and or investigation.

On September 30, 1996, DOE/LANL submitted an additional request to remove 42 SWMUs from its HSWA corrective action module. Three (3) SWMUs were removed from the permit on December 8, 1997 as part of this submittal. An additional 2 of the 39 remaining SWMUs were evaluated with additional information provided by DOE/LANL. These 2 SWMUs have been reviewed by NMED and determined that they are appropriate for NFA. The remaining 37 SWMUs are subject to further study and investigation.

In summary, DOE/LANL has cumulatively requested through these three submittals a total of 190 SWMUs for No Further Action. NMED has reviewed these requests and has determined that 99 (in addition to the three SWMUs removed from the permit) of the total 190 SWMUs are appropriate for NFA. The remaining (88) SWMUs will be the subject of further study and or investigation.

### **C. INVESTIGATION RESULTS**

During investigation of the SWMUs at LANL, it was determined that certain sites were identified as SWMUs that never handled hazardous waste including hazardous constituents regulated under RCRA. Other SWMUs were duplicates of other sites, or were included in investigations of other SWMUs. These are some of the types of SWMUs that DOE/LANL requested for NFA in their requests for Class 3 permit modifications dated March 27, 1995, September 28, 1995, and September 30, 1996. NFA criteria were developed and employed during the SWMU investigations. The 190 SWMUs proposed for NFA are categorized based on these NFA criteria. At this time, NMED has identified ninety-nine (99) of these sites as appropriate for NFA. Brief descriptions of each of the SWMUs proposed for NFA are included in Section I. A more detailed description can be found in the March and September 1995 and September 1996 Requests for Permit Modification from LANL or in LANL's RCRA Facility Investigation Work Plans as referenced in the permit modification requests. Additional references are included in Section J, Supporting Documentation.

### **D. PERMIT MODIFICATION**

The administrative record for this proposed action consists of a legal notice, a fact sheet, NMED's Statement of Basis, the Requests for Permit Modification, related correspondence and documents and the modified permit. The administrative record may be reviewed during normal business hours at:

New Mexico Environment Department  
Hazardous and Radioactive Materials Bureau  
2044-A Galisteo  
Santa Fe, New Mexico 87505  
(505) 827-1558  
Attn: Mr. John Kieling

The legal notice, fact sheet, NMED's Statement of Basis, and modified permit may also be reviewed at:

LANL's Community Relations Reading Room  
1350 Central Avenue, Suite 101  
Los Alamos, New Mexico 87544

### **E. SELECTED REMEDY**

NMED's determination that no further action is required at these SWMUs is based on sampling and analytical data, field surveys, historical records, aerial photographs, and employee interviews that show no or insignificant release(s) of hazardous wastes to the environment. The determination is based on the following criteria:

1. The site cannot be located or has been found not to exist, is a duplicate SWMU, or is located within and therefore, investigated as part of another SWMU.
2. The site has never been used for the management (that is, generation, treatment, storage or disposal) of RCRA solid or hazardous wastes and/or constituents or other Comprehensive Environmental Response,

Compensation and Liability Act of 1980 (CERCLA) hazardous substances.

3. No release to the environment has occurred, nor is likely to occur in the future. The term "release" by definition means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment.

4. There was a release, but the site was characterized and/or remediated under another authority which adequately addressed corrective action, and documentation, such as a closure letter, is available

5. The SWMU has been characterized or remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants pose an acceptable level of risk under current and projected future land use.

Each site proposed for NFA is described under the applicable NFA criteria in Section I.

## **F. PUBLIC PARTICIPATION**

Requirements for public notification are required by the New Mexico Hazardous Waste Management Regulations. Upon submittal of a request for permit modification, a facility is required to publish a notice in a local newspaper and send notices to all persons on the facility mailing list maintained by NMED. This notice announces a 60-day comment period for the request for permit modification and indicates the time, date, and place where a public meeting is to be held. Comments made during the public comment period are addressed to NMED for consideration during the review process. Upon review of the request for permit modification by NMED, a list of SWMUs that are deemed appropriate for NFA must be published in a local newspaper and public notices must be sent to all persons on the facility mailing list. As part of this process, the public may make comments to and/or request additional information from NMED.

Due to the fact that three submittals for permit modification by DOE/LANL to NMED, the facility was required by regulations to hold three separate public meetings. These public meetings were held as indicated:

A public meeting was held by DOE/LANL on May 9, 1995, at the Pojoaque High School Gymnasium, Pojoaque, New Mexico, regarding the March 1995 Request for Permit Modification. Approximately fifty people attended the meeting, including representatives from DOE, LANL, NMED, and EPA. NMED and EPA are not aware of any written comments regarding the March 1995 request.

A public meeting was held by DOE/LANL on October 25, 1995, at the Sweeney Convention Center (Room 1), Santa Fe, New Mexico, regarding the September 1995 Request for Permit Modification. Approximately fifty people attended the meeting, including representatives from DOE, LANL, and NMED. NMED and EPA are not aware of any written comments regarding the September 1995 request.

A public meeting was held by DOE/LANL on November 7, 1996, at the Sweeney Convention Center, Santa Fe, New Mexico, regarding the September 1996 Request for Permit Modification. Fourteen people attended the meeting, including representatives from DOE, LANL, and NMED. No written comments regarding this document have been forwarded to NMED.

NMED issued a Public Notice on **October 21, 1998**, to announce the beginning of a 45-day comment period which will end on **December 4, 1998**.

## **G. NEXT STEPS**

NMED will notify DOE/LANL and each person on the public comment mailing list of the final decision. The final decision will become effective thirty (30) days after service of the decision, unless a later date is specified or review is requested under the New Mexico Hazardous Waste Management Regulations, 20 NMAC 4.1, Section 901.E., *Hearings*.

#### **H. CONTACT PERSON FOR ADDITIONAL INFORMATION**

John Kieling  
New Mexico Environment Department  
Hazardous and Radioactive Materials Bureau  
2044-A Galisteo  
Santa Fe, New Mexico 87505  
(505) 827-1558

#### **I. DESCRIPTION OF SWMUs PROPOSED FOR NO FURTHER ACTION**

##### **SWMUs proposed for NFA in March and September 1995 and September 1996**

*NFA Criterion 1. The site cannot be located or has been found not to exist, is a duplicate SWMU, or is located within and therefore, investigated as part of another SWMU.*

##### **1-1 SWMU 1-001(i) Septic Tank 143, TA-1 (Former Operable Unit 1078)**

The RFI Work Plan for Operable Unit 1078 indicated that Septic Tank 143 served the TU Building. However, LANL engineering drawings furnish evidence that rather than serving the TU Building, Septic Tank 143 served only the former J-Division Annex building (also known as Warehouse 3) until the building was removed in 1965. Thus, Septic Tank 143 received sanitary waste only. Archival records indicate that the tank was removed in 1965. The map location of this septic tank is in an area that is currently the location of townhouses and associated common areas. This area has undergone extensive soil disturbance from demolition activities associated with TU Building that occurred from 1974-1976. The demolition activities included the removal of soil and the discovery and removal of an unidentified septic tank with no radiological contamination. This septic tank was in the approximate location of Septic Tank 143. It is possible that the tank excavated during the 1970s was actually Septic Tank 143 which may have been abandoned in place in 1965 rather than removed. The former location of SWMU 1-001(i) is part of the larger subsurface soil investigation of SWMU 1-007(h). SWMU 1-001(i) is located within the boundary of the SWMU 1-007(h) investigation and is appropriate for NFA under Criterion 1.

##### **1-2 SWMU 1-001(k) Septic Tank 268, TA-1 (Former Operable Unit 1078)**

Septic Tank 268 served the former TU Building from August 1945 until the building was removed in 1964. Records show that the tank was removed in 1964 along with the building. The area at the former location of Septic Tank 268 has undergone extensive soil disturbance from demolition activities associated with TU Building that occurred from 1974-1976. The demolition activities included the removal of soil. The former location of SWMU 1-001(k) is part of a larger subsurface soil investigation of SWMU 1-007(h). SWMU 1-001(k) is located within the boundary of the SWMU 1-007(h) investigation and is appropriate for NFA under Criterion 1.

##### **1-3 SWMU 1-001(n) Septic Tank 276, TA-01 (Former Operable Unit 1078)**



SWMU 1-001(n) is Septic Tank 276, a septic tank that served the Theta Building, from 1944 to 1946. Theta building was a warehouse that had no known history of radioactivity. The building was removed in 1946. The associated septic tank [SWMU 1-001(n)] was located and removed in 1977. No radiological contamination was found in or around the tank and associated line at the time of removal. The former location of SWMU 1-001(n) is currently located on private property. SWMU 1-001(n) is located within the boundary of the SWMU 1-007(d) investigation and is appropriate for NFA under Criterion 1.

**1-4 SWMU 3-009(b) Surface Disposal, TA-3 (Former Operable Unit 1114)**

SWMU 3-009(b) is a surface disposal area. The SWMU Report (LANL 1990) described this SWMU as "Concrete and building debris are located in an approximately ½ acre fill area adjacent to the South Mesa fire station (TA-3-41)". However, repeated searches did not locate any debris adjacent to building TA-3-41. SWMU 3-009(b) is appropriate for NFA under Criterion 1 because this site cannot be located.

**1-5 SWMU 3-009(e) Surface Disposal Area, TA-3 (Former Operable Unit 1114)**

SWMU 3-009(e) was a site originally identified as a surface disposal area located at the head of Mortandad Canyon. Investigations of this site revealed that the SWMU was actually a fill area used to level the present TA-3 construction site, prior to construction activities. Aerial photos obtained by the facility confirmed that the area was filled between 1950 and 1952 and has no history of being used as a disposal area. SWMU 3-009(e) is appropriate for NFA under Criterion 1 because it has been shown not to exist.

**1-6 SWMU 3-009(h) Surface Disposal Area, TA-3 (Former Operable Unit 1114)**

SWMU 3-009(h) is a surface disposal area described as piles and concrete debris located on Sigma asphalt mesa. LANL redesignated this portion of TA-3 to TA-60. As a result of this administrative action, the site was re-identified and assigned the identification number of 60-002. SWMU 3-009(h) is appropriate for NFA under Criterion 1 because it is a duplicate of SWMU 60-002.

**1-7 SWMU 7-003(c) Typographical Error, TA-7**

SWMU 7-003(c) was a typographical error. During revisions to a LANL request for a Class 3 Permit Modification to the HSWA Module of its RCRA Hazardous Waste Facility Permit in February 1993, a clerical typing error was made. There is no record of this SWMU in the SWMU Report (LANL 1990). SWMU 7-003(c) is appropriate for NFA under Criterion 1 because it has been shown not to exist.

**1-8 SWMU 7-003(d) Typographical Error, TA-7**

SWMU 7-003(d) was a typographical error. During revisions to a LANL request for a Class 3 Permit Modification to the HSWA Module of its RCRA Hazardous Waste Facility Permit in February 1993, a clerical typing error was made. There is no record of this SWMU in the SWMU Report (LANL 1990). SWMU 7-003(d) is appropriate for NFA under Criterion 1 because it has been shown not to exist.

**1-9 SWMU 8-006(b) Landfill, TA-8 (Former Operable Unit 1157)**

In the SWMU Report (LANL 1990), SWMU 8-006(b) was identified as a disposal area to the east of Building TA-8-21. Material Disposal Area (MDA) Q [SWMU 8-006(a)] is located south of Building TA-8-21 in the same area as SWMU 8-006(b). A memo indicates that a construction crew found buried debris near TA-8-21. The memo further documents that additional information subsequently identified this buried debris as actually being a portion of MDA Q. The SWMU Report erroneously assigned the buried

debris found by the construction crew as SWMU 8-006(b). SWMU 8-006(b) is a duplicate of 8-006(a); therefore, SWMU 8-006(b) is appropriate for NFA under Criterion 1.

**1-10 SWMU 16-005(i) Septic Tank, TA-16 (Former Operable Unit 1082)**

SWMU 16-005(i) is a septic tank originally designated as structure number TA-13-12, which was given a SWMU number of 13-003(a). When TA-16 merged with TA-13, structure number TA-13-12 was redesignated as structure number TA-16-486. Another SWMU number [16-005(i)] was given to this redesignated structure. SWMU 16-005(i) is a duplicate of SWMU 13-003(a); therefore, SWMU 16-005(i) is appropriate for NFA under Criterion 1.

**1-11 SWMU 16-006(i) Septic Tank, TA-16 (Former Operable Unit 1082)**

SWMU 16-006(i) is an active septic tank. This septic tank was originally designated as structure number TA-16-00 during the design phase of this tank. Once the septic tank construction was completed, LANL's Engineering Division assigned the structure a permanent number (TA-16-1153). Both structure numbers were mistakenly assigned SWMU numbers, 16-006(i) and 16-006(f) respectively. SWMU numbers 16-006(i) and 16-006(f) are in fact the same unit. SWMU 16-006(i) is appropriate for NFA because it is a duplicate of SWMU 16-006(f).

**1-12 SWMU 16-012(k, r, and s) Container Storage-Rest House, TA-16 (Former Operable Unit 1082)**

SWMUs 16-012(k, r, and s) are storage areas often referred to as "rest houses". Rest houses are auxiliary buildings that function as intermediate storage areas for explosives being delivered to process buildings, for finished products ready for transport, or for scrap being removed for disposal. The TA-16 rest houses were constructed in the late 1940s and early 1950s. These rest houses are currently part of active operations, managed under rigid safety procedures. Containerized high explosive (HE) material is delivered to and from rest houses under strictly controlled operating procedures. Rest houses are cleaned and maintained on regular schedules. Recent field screening indicated that no HE contamination was present at the exterior loading docks. SWMUs 16-012 (k, r, and s) have associated sumps and drainage systems that can discharge constituents to the environment. The sumps and drainage systems for these rest houses are being investigated as SWMUs 16-029 (c, f, and e), respectively. SWMUs 16-012 (k, r, and s) are appropriate for NFA under Criterion 1 because their sumps and drainage systems will be investigated as SWMUs 16-029 (c, f, and e), respectively.

**1-13 SWMU 16-026(i2) Outfall, TA-16 (Former Operable Unit 1082)**

SWMU 16-026(i2) is identified in the SWMU Report (LANL 1990) as an inactive outfall from the building drains associated with TA-16-54. Based on a review of engineering drawings and conversations with former site workers, it has been determined that the drains in Building TA-16-54 emptied to interior sumps and discharged from the sumps to a septic tank system. This septic tank system will be sampled as part of the investigation of SWMU 16-006(a) as outlined in the RFI Work Plan for Operable Unit 1082. SWMU 16-026(i2) is appropriate for NFA because it will be investigated as part of SWMU 16-006(a).

**1-14 SWMU 16-032(d) Decommissioned HE Sump, TA-16 (Former Operable Unit 1082)**

SWMU 16-032(d) is identified as a decommissioned HE sump associated with TA-16-24. As indicated in the SWMU Report (LANL 1990), this SWMU was duplicated as SWMU 16-029(f2). SWMU numbers 16-032(d) and 16-029(f2) were both assigned to this structure. The LANL Environmental Restoration Project opted to retain the designation 16-029(f2) for addressing the sump. The descriptions of both SWMUs as outlined in the SWMU Report indicate verification of the error. SWMU 16-032(d) is appropriate for NFA under Criterion 1 because it is a duplicate of SWMU 16-029(f2).

**1-15 SWMU 16-034(g) Soil Contamination, TA-16 (Former Operable Unit 1082)**

In the SWMU Report (LANL 1990), SWMU 16-034(g) is inaccurately identified as soil contamination associated with the operation and decommissioning of Building TA-16-517. The report goes on to state that the building was flash-burned prior to demolition, which implies that the building was removed. However, Building TA-16-517 is still intact and is identified as SWMU 16-017. SWMU 16-034(g) is appropriate for NFA under Criterion 1 because it is a duplicate of SWMU 16-017.

**1-16 SWMU 21-012(a) Dry Well, TA-21 (Former Operable Unit 1106)**

In the SWMU Report (LANL 1990), SWMU 21-012(a) is identified as a dry well inside Building TA-21-357, the new TA-21 steam plant. The SWMU Report also identified another dry well [SWMU 21-012 (b)] that was associated with the former steam plant, Building TA-21-9. The former steam plant at TA-21 was torn down in 1985 and replaced with a new steam plant that went on-line in 1985. During two site visits, on May 11, 1990, and on August 8, 1990, investigating personnel found no indications of a dry well anywhere within the interior of the new steam plant. The discrepancy is probably a result of assuming that the new plant had a similar system as the old plant, which did have a dry well [SWMU 21-012(b)] associated with it. SWMU 21-012(b) is currently under investigation. SWMU 21-012(a) is appropriate for NFA under Criterion 1 because it has been shown not to exist.

**1-17 SWMU 40-001(a) Septic System, TA-40 (Former Operable Unit 1111)**

In the SWMU Report (LANL 1990), SWMU 40-001(a) is described as a septic tank designated as structure number TA-40-22. The SWMU Report also indicates that no structure number appears on original drawings. Additionally, neither a septic tank nor this structure number is identified on site-specific engineering drawings of septic tanks at TA-40. Engineering drawings do indicate a pipe from Building TA-40-1 roof drains leading to the area where the structure sign for TA-40-22 is located. In addition, other drawings also indicate the presence of a vitrified clay pipe, apparently fed by the roof drains, leading to this area. Field reconnaissance found a drainpipe but no septic system. Subsequent drain tracing tests indicated that this outlet is fed only by drains from the roof of Building TA-40-1. SWMU 40-001(a) is appropriate for NFA under Criterion 1 because it has been shown not to exist.

**1-18 SWMU 46-008(c) Storage Area, TA-46 (Former Operable Unit 1140)**

In the SWMU Report (LANL 1990), SWMU 46-008(c) is identified as a site where barrels, cans, and drums are located "in a fenced area" (LANL 1990). The SWMU location is not provided in the maps supplied with either the 1988 or 1990 SWMU Report. There is no explicit reference in the RCRA facility assessment to such a storage area. A diligent search of TA-46 aerial photographs failed to target a candidate area for this SWMU location. TA-46 has undergone programmatic changes resulting in relocation of fences throughout the site. The investigating team was unable to locate this site from the description in the SWMU Report. SWMU 46-008(c) is appropriate for NFA under Criterion 1 because it cannot be located.

**1-19 SWMU 52-002(c and d) Septic Systems, TA-52 (Former Operable Unit 1129)**

The SWMU Report (LANL 1990) identifies SWMU 52-002(c) as a septic system designated by structure number TA-52-46 and SWMU 52-002(d) as a septic system designated by structure number TA-52-47. However, these structure numbers cannot be located on engineering drawings of septic systems at TA-52. In addition, neither Group ENG-7 nor Johnson Controls Northern New Mexico has any information on septic systems with these structure numbers. Therefore, SWMUs 52-002(c and d) represent septic systems that apparently were planned but never constructed. These SWMUs are appropriate for NFA under

Criterion 1 because they have been shown not to exist.

**1-20 SWMU 54-013(a) Decontamination Facility, TA-54 (Former Operable Unit 1148)**

At the time the SWMU Report (LANL 1990) was written, LANL planned to build a truck-washing pit at TA-54 West. This area was designated in the SWMU Report as SWMU 54-013(a) in anticipation of its construction. Plans to build the facility were subsequently canceled. SWMU 54-013(a) is appropriate for NFA under Criterion 1 because it was shown not to exist.

***NFA Criterion 2. The SWMU has never been used for the management (that is, generation, treatment, storage or disposal) of RCRA solid or hazardous wastes and/or constituents or other Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) hazardous substances.***

**2-1 SWMU 0-005 Landfill, TA-0 (Former Operable Unit 1071)**

SWMU 0-005 (Mortandad Canyon "landfill") is a small fenced area that was formerly used in an experimental study that examined the transport of particulates from the ground surface to plants as a result of rain splash. The study was conducted from 1976 to the early 1980s. Short-lived radionuclides were used as tracers. Soil from within the fenced area was put in 55-gal. drums and transported to TA-50, where four radionuclides, all with half-lives less than 115 days, were mixed into the soil by rotating the drums. The drums were taken back to the study plot, and the soil was returned to the site. According to LANL documentation, several of the empty drums were stacked inside and one outside the fence. These drums were still located at the fence line in 1986 but were removed from the site sometime prior to November 1988. The transport experiments were discontinued in the early 1980s. Since that time, the radionuclides used as tracers in the study have decayed to negligible levels. The drums, present at the site, were empty drums used to transport the soil used in the experiment. The radionuclides used in the experiment were employed solely to act as tracers and they have subsequently decayed to negligible levels. SWMU 0-005 is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-2 SWMU 1-001(h) Septic Tank 142, TA-1 (Former Operable Unit 1078)**

Septic Tank 142 served Building 118, which housed a bathroom used by personnel responsible for maintaining townsite residences. The bathroom and septic tank were used from 1946 until 1953. The septic tank was removed in 1976. The septic tank received domestic sewage only. SWMU 1-001(h) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-3 SWMU 1-001(i) Septic Tank 269, TA-1 (Former Operable Unit 1078)**

SWMU 1-001(i) was a septic tank (numbered 269) consisting of three sections of vitrified clay pipe. Each section measured three feet long by two feet in diameter. Septic Tank 269 served Building S-1 from the mid-1940s until the building was removed in August 1954. Septic Tank 269 was also removed in August 1954. Building S-1 was located in the northeastern portion of TA-1, outside the TA-1 security fence. Because a site photograph was misinterpreted, Building S-1 was incorrectly identified as a service garage for vehicles in the RFI Work Plan for Operable Unit 1078. As a result, it was assumed that there was the potential for the release of small quantities of petroleum products from the service garage to the septic tank. After the Work Plan was completed and submitted for review, floor plans for Building S-1 were found. The floor plans indicate that Building S-1 served as a shop and a stockroom, but not as a service

garage. The floor plans also indicate that Septic Tank 269 served one bathroom only, located in the southwestern corner of the building. Thus, only sanitary wastes would have gone into this septic tank. Reinspection of the photograph confirmed that Building S-1 had originally been misidentified as a service garage. In addition, interviews with several former TA-1 staff members confirmed that plumbers had occupied Building S-1. Septic Tank 269 received sanitary sewage only. Because this septic tank never received hazardous constituents, there was never a release to the environment. In addition the tank was removed in 1954. Therefore, SWMU 1-001(l) is appropriate for NFA under Criterion 2.

**2-4 SWMU 3-009(f) Surface Disposal, TA-3 (Former Operable Unit 1114)**

In the SWMU Report (LANL 1990), SWMU 3-009(f) is described as follows: "There have been reports of a landfill north of TA-3-16". The only feature in the area is a narrow strip of rocks along the roadside north of the Van de Graaff Building. A 1954 aerial photograph indicates that the road was originally constructed in 1951 when the Van de Graaff facility was built. The area below the road is grassy and slopes from the road southwest to the rim of Twomile Canyon. Aerial photographs indicate that a fill area was never located between this road fill and TA-3-16. Aerial photographs from 1984 show fresh rock fill along the road. The SWMU consists of road fill with a few concrete pieces visible along the bank. There is no indication of hazardous constituents associated with this SWMU. SWMU 3-009(f) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-5 SWMU 3-012(a) Controlled Operational Release, TA-3 (Former Operable Unit 1114)**

SWMU 3-012(a) is the site of a controlled operational release located on the north slope of Mortandad Canyon. The release was a controlled operational pipe cleaning procedure. In 1972, the recirculating chilled water system at Sigma Building was treated with ammonium bifluoride to remove scale deposits. A small earthen dam was built to form a holding pond to catch the effluent from the flushing of the system. Lime (calcium oxide) was used to form fluorite (calcium fluoride), an inert, nonreactive, insoluble compound. No hazardous constituents were used in the process. SWMU 3-012(a) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-6 SWMU 8-003(b) Septic System, TA-8 (Former Operable Unit 1157)**

Septic Tank TA-8-64 was installed in early 1949 to serve an office building, TA-8-9, also known as Building 11 and AW-9. These alternate designations caused some confusion on the part of the authors of the SWMU Report (LANL 1990), and the association of this septic tank with Building AW-11 in that report is in error. At the time that the tank was installed, Building AW-9 (TA-8-9) was located north of the now-abandoned TA-8 bunkers. In December 1949, the building was moved onto the Gun-Firing Site to make way for the construction of Building TA-8-21. Septic tank TA-8-64 was abandoned in place at that time. According to a worker who was working in Building AW-9 in 1950, it then housed offices for administrative and drafting work. The original engineering drawings do not show any floor drains or sinks that would be associated with photo-processing or other activities involving the use of chemicals. In fact, the drawings indicate that from the time the building was erected until the time it was moved, it housed offices only. There is no indication that hazardous constituents ever existed in this septic tank. SWMU 8-003(b) received domestic sewage only. SWMU 8-003(b) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-7 SWMU 8-003(c) Septic System, TA-8 (Former Operable Unit 1157)**

Septic tank TA-8-67 was installed in early 1950 to serve office building AW-9 (TA-8-9) when it was moved onto the TA-8 Gun-Firing Site. Early in 1968, the tank was filled with tamped earth and abandoned in place. Although a September 28, 1971, memo suggests the possibility of chemical contamination, a previous memo dated April 18, 1967, clarifies the 1971 memo. The memo, written in 1967, indicates that the alleged contamination of TA-9-67 would have been due to 'small amounts of uranium which were used in TA-8-1 and which might have reached the septic system.' A search of historical records revealed no indication of any physical connection between Building TA-8-1 and Septic Tank TA-8-67. There are no indications that hazardous constituents ever entered in this septic tank. SWMU 8-003(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-8 SWMU 9-003(c) Manhole, TA-9 (Former Operable Unit 1157)**

Structure TA-9-85 was an electrical control manhole built in 1943. The SWMU Report misidentified this structure number as a sump (LANL 1990). The manhole was constructed of brick and served Building TA-9-14, a laboratory. The manhole was abandoned in place in September 1962. In 1965, the top was removed 24 in. below the surface and the structure was filled and covered with dirt. During a utility upgrade in 1985, this structure was found and removed. SWMU 9-003(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-9 SWMU 9-003(f) Settling Tank, TA-9 (Former Operable Unit 1157)**

SWMU 9-003(f) was a settling tank that served an environmental test chamber. The chamber was installed in 1950 to serve Building TA-9-51. The test chamber was removed when the building was modified later that year (1950). The test chamber contained ovens that cycled through ranges of temperatures in order to test sealed weapon components. The testing operation produced no hazardous wastes. SWMU 9-003(f) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-10 SWMU 9-005(b) Septic System, TA-9 (Former Operable Unit 1157)**

Structure TA-9-105 is an inactive, 1500-gal. reinforced-concrete sanitary septic tank that received sanitary liquid waste from Buildings TA-9-21, TA-9-28, and TA-9-29. The tank was constructed in August 1952 and abandoned in place in December 1988. There are no documented records of a release of hazardous constituents to this tank. Laboratories in this building have dedicated industrial waste drains and/or sinks for the collection of any hazardous materials, which are not connected to this septic system. SWMU 9-005(b) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-11 SWMU 9-005(c) Septic System, TA-9 (Former Operable Unit 1157)**

SWMU 9-005(c) is an inactive 750-gal. septic tank. It was installed in 1952 and abandoned in place in 1988. This septic tank received sanitary wastes from Buildings TA-9-21, TA-9-33, TA-9-34, TA-9-37, and TA-9-38. These buildings are used for high explosives processing. Laboratories in these buildings have dedicated industrial waste drains and/or sinks for the collection of any hazardous materials, which are not connected to this septic system. SWMU 9-005(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-12 SWMU 9-005(e) Septic System, TA-9 (Former Operable Unit 1157)**

SWMU 9-005(e) is a septic tank that was used from 1952 to 1992. The septic tank was abandoned in

place in 1992. Engineering drawings show that this tank received only sanitary waste from Buildings TA-9-41, TA-9-42, TA-9-43, TA-9-45, and TA-9-46. Laboratories in this building have dedicated industrial waste drains and/or sinks for the collection of any hazardous materials, which are not connected to this septic system. SWMU 9-005(e) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-13 SWMU 9-005(f) Septic System, TA-9 (Former Operable Unit 1157)**

SWMU 9-005(f) is a reinforced concrete 750-gal. sanitary septic tank. The tank was installed in 1952 and was taken out of service in 1992 and abandoned in place when the site-wide sanitary wastewater systems consolidation line was installed. Engineering drawings also show that this tank was connected only to sanitary waste lines from Building TA-9-4. Laboratories in this building have dedicated industrial waste drains and/or sinks for the collection of any hazardous materials, which are not connected to this septic system. SWMU 9-005(f) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-14 SWMU 9-005(h) Septic System, TA-9 (Former Operable Unit 1157)**

SWMU 9-005(h) is a prefabricated steel septic tank. The tank capacity was 320-gal. and it was installed in 1951. The tank was taken out of service in 1992 and abandoned in place when the site-wide sanitary wastewater systems consolidation line was installed. This tank received only sanitary waste from Building TA-9-51. Building TA-9-51 was a test chamber that contained ovens that cycled through a range of temperatures in order to test sealed weapons components. Operations in this building have never generated hazardous waste. The building is currently used for storage of nonhazardous materials. Engineering drawings show that this tank was connected only to sanitary waste lines from Building TA-9-51. SWMU 9-005(h) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-15 SWMU 9-007 Basket Pit, TA-9 (Former Operable Unit 1157)**

SWMU 9-007 is an inactive basket pit that served Building TA-9-51. The pit is constructed of reinforced concrete and has a hinged steel lid. It was built in 1952 as a replacement to a settling tank that was removed to accommodate a building addition. Building TA-9-51 was a test chamber that contained ovens that cycled through a range of temperatures in order to test sealed weapons components. The testing operation produced no hazardous wastes. SWMU 9-007 is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-16 SWMU 11-007 Surface Disposal, TA-11 (Former Operable Unit 1082)**

SWMU 11-007 is a surface disposal area containing large blocks of concrete and some road-building debris. This surface disposal area is located at the head of the small canyon drainage that borders the south side of the major developed area at TA-11. On the east-facing slope, several concrete blocks, which served as targets for an air gun in TA-11-24, had been laid for erosion control. Other concrete scraps are scattered about. To the south, several sections of concrete culvert are scattered near the road. Some road-building debris (asphalt, rebar, gravel, etc.) is also in evidence in the immediate area. SWMU 11-007 is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-17 SWMU 16-005(f) Decommissioned Septic System, TA-16 (Former Operable Unit 1082)**

SWMU 16-005(f) was a 1500-gal. septic tank (TA-16-272), associated line, doser chamber, distribution box, and outfall associated with TA-16-260, the HE machining line at TA-16. TA-16-272 was built in

1951, abandoned in 1952, and later removed; no removal date was recorded. Following decommissioning of TA-16-272 in 1952, TA-16-260 was connected to the site-wide sanitary waste water treatment system, which was located approximately 190 ft from the northeast corner of TA-16-260. Available drawings indicate that the system was connected to several bathrooms along the west side of Building TA-16-260. As reported in a memo from a former site worker, Septic Tank TA-16-272 was monitored and found to be free of radioactive contamination and is not listed as having an HE hazard. Documentation indicates that this septic tank received only sanitary waste from TA-16-260. SWMU 16-005(f) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-18 SWMU 16-005(o) Septic System, TA-16 (Former Operable Unit 1082)**

SWMU 16-005(o) is identified as a septic tank, TA-16-420. According to the 1990 SWMU Report, it was removed in 1962. This septic tank served Building TA-16-101, a guardhouse. There is no documentation suggesting this septic tank received anything other than sanitary waste from its associated guardhouse. SWMU 16-005(o) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-19 SWMU 16-006(b) Septic System, TA-16 (Former Operable Unit 1082)**

SWMU 16-006(b) is a reinforced concrete septic tank that was built in 1952, with a capacity of 380 gal. This septic tank serves an inactive guardhouse. This tank receives sanitary wastes from the guardhouse, and overflow from the tank went to an associated leach field. There is no documentation that would indicate that this septic tank receives anything other than sanitary waste from its associated guardhouse. SWMU 16-006(b) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-20 SWMU 16-006(f) Septic System, TA-16 (Former Operable Unit 1082)**

SWMU 16-006(f) is a 1000-gal. septic tank that was constructed in 1987. This tank was installed to service bathroom facilities in TA-16-1153. A drain field associated with the septic tank is located to the southwest of the tank. There is no documentation that would indicate that this septic tank receives anything other than sanitary waste. SWMU 16-006(f) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-21 SWMU 16-025(c) Abandoned Utility Building and Appurtenances, TA-16 (Former Operable Unit 1082)**

SWMU 16-025(c) was a utility building, TA-16-35, which supported machining buildings TA-16-31, TA-16-32, and TA-16-33. Steam heat and other utility lines came first to this building and then were distributed to the buildings it served. The building was removed after 1960, and records indicate that this building had no associated chemical or HE contamination. There is no record of any spills or releases associated with this structure. The area is currently vacant and overgrown with vegetation. There is no documentation that this building was used for the handling or storage of hazardous materials. SWMU 16-025(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-22 SWMU 16-031(g) Cooling Tower Outfall, TA-16 (Former Operable Unit 1082)**

SWMU 16-031(g) was the site of a cooling tower used to provide noncontact cooling water for casting molds from 1946 to 1960; the cooling tower was removed in 1960. Documentation shows that only tap water was used in the non-contact cooling water. SWMU 16-031(g) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or



constituents.

**2-23 SWMU 16-032(e) Decommissioned HE Sump, TA-16 (Former Operable Unit 1082)**

SWMU 16-032(e) was listed in the 1990 SWMU Report as a decommissioned HE sump, but the designated unit was actually water pump pit TA-16-20. The pit was constructed of reinforced concrete with a double wooden cover and was removed in 1953. A service manhole associated with the pump pit still remains. The pit was associated with TA-16-21, a pump house, and was used to pump water from a tank located on Jemez Road. A 1983 memo indicates that HE may have been associated with TA-16-20, but given its function and its location outside of the HE exclusion area, this does not seem plausible. SWMU 16-032(e) is misidentified in the SWMU Report as a decommissioned HE sump. It is actually a water pump pit that would not have come into contact with HE. SWMU 16-032(e) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-24 SWMU 3-018 Septic System, TA-3 (Former Operable Unit 1114)**

SWMU 3-018 was a cesspool installed during the original construction of the Van de Graaff Building (TA-3-16) in 1952. The cesspool was located directly south of the Van de Graaff Building. It was constructed of concrete, approximately 5 ft in height by 4 ft in diameter. By the time facility construction was completed, the building was connected to the sanitary sewer and industrial waste systems and the cesspool was never used. It was filled with soil and abandoned in place in July of 1964. It is currently located beneath an asphalt parking lot. Because the cesspool was never used, SWMU 3-018 is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-25 SWMU 33-004(e) Seepage Pit, TA-33 (Former Operable Unit 1122)**

SWMU 33-004(e) is an abandoned seepage pit that received overflow from a septic system serving an office building. Both the office building and seepage pit were removed in 1989. Documentation shows that no hazardous constituents were received by this seepage pit. SWMU 33-004(e) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-26 SWMU 33-004(f) Septic System, TA-33 (Former Operable Unit 1122)**

SWMU 33-004(f) is a 1,000-gal. fiberglass holding tank that served a residential trailer. The tank received domestic sewage only. It was pumped periodically and the sewage was trucked and treated at the TA-3 sanitary wastewater treatment plant. SWMU 33-004(f) is appropriate for NFA because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-27 SWMU 35-003(i) Wastewater Treatment Facility, TA-35 (Former Operable Unit 1129)**

SWMU 35-003(i) is the site of two steel surge tanks that were used to accommodate gas pressure excursions from the gas laser facility in Building TA-35-29. Helium and nitrogen gases were the only substances handled by these tanks. The surge tanks were never associated with the wastewater treatment plant despite their designation as a subunit of SWMU 35-003, which generally refers to the wastewater treatment facility. SWMU 35-003(i) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-28 SWMU 36-003(c) Septic System, TA-36 (Former Operable Unit 1130)**

SWMU 36-003(c) is a sanitary waste system associated with a guard station. The guard station and sanitary waste system are not associated with activities that generate hazardous waste. SWMU 36-003(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-29 SWMU 39-003 Incinerator, TA-39 (Former Operable Unit 1132)**

From approximately 1955 to 1977 a small incinerator was located between the south wall of Building TA-39-2 and the south perimeter security fence. It was used primarily to burn office waste, and there is no indication that it was ever used for disposal of hazardous constituents/waste. In 1977, an addition was built onto the south end of Building TA-39-2, necessitating relocation of the perimeter security fence about 60 ft south of the addition. At this time, the incinerator was removed and buried in one of the TA-39 landfill pits. SWMU 39-003 is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-30 SWMU 39-006(b) Septic System, TA-39 (Former Operable Unit 1132)**

This active septic system serves Building TA-39-111 (the Pulsed Power Assembly Building) and was part of the original construction of the building in 1989. It is located northwest of TA-39-111 and consists of a 1000-gal. reinforced concrete septic tank (TA-39-132), a distribution box, and a leach field. This system was designed for sanitary waste disposal only. SWMU 39-006(b) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-31 SWMU 52-001(a, b, and c) UHTREX Equipment, TA-52 (Former Operable Unit 1129)**

SWMUs 52-001(a, b, and c) are equipment that was associated with the filter and cooling systems of the Ultra-High-Temperature Reactor Experiment (UHTREX) reactor. These sites underwent D&D in 1989 and were decontaminated to levels below DOE guidelines for radioactivity. No process-related source for nonradioactive hazardous constituents exists at these sites. SWMUs 52-001(a, b, and c) are appropriate for NFA under Criterion 2 because they have never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-32 SWMU 52-002(b and f) Septic System, TA-52 (Former Operable Unit 1129)**

SWMUs 52-002(b and f) are active septic systems, installed in the early 1980s. These septic systems serve office buildings that have never used or managed hazardous or radioactive materials. SWMUs 52-002(b and f) are appropriate for NFA under Criterion 2 because they have never been used for the management of RCRA solid or hazardous wastes and/or constituents.

**2-33 SWMU 54-001(c) Storage Area, TA-54 (Former Operable Unit 1148)**

When the SWMU Report (LANL 1990) was written, a portable, inflatable temporary berm containing a steel tank was proposed for the storage of waste oil and hazardous materials at MDA L. It was designated SWMU 54-001(c). However, the tank collected only rainwater and it was never used to store waste oil or hazardous materials. The inflatable berm and tank have been removed. SWMU 54-001(c) is appropriate for NFA under Criterion 2 because it has never been used for the management of RCRA solid or hazardous wastes and/or constituents.

***NFA Criterion 3. No release to the environment has occurred, nor is likely to occur in the future. The term***

***“release” by definition means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment.***

**3-1 SWMU 1-001(j) Septic Tank 149, TA-1 (Former Operable Unit 1078)**

In the SWMU Report (LANL 1990), SWMU 1-001(j) was incorrectly identified as a septic tank located between Buildings U and W at TA-1. This discrepancy resulted because the relevant LANL engineering drawings do not distinguish between aboveground tanks and septic tanks. A review of engineering drawings, interviews with a former site worker and Laboratory director, and a review of an area photograph determined that Tank 149 was an aboveground tank. These sources also indicated that the tank was constructed of steel and that the tank was used for the storage of dielectric gas used in the operation of the Van de Graaff generators located in Building W. When portions of TA-1 were decommissioned in 1953 and Tank 149 was relocated to the Van de Graaff building in TA-3, the integrity of the tank was confirmed. Based on the misidentification of the type of Tank 149, its exclusive use as a product storage tank for dielectric gas, and the non-release of contaminants, SWMU 1-001(j) is appropriate for NFA under Criterion 3.

**3-2 SWMU 3-039(a) Silver Recovery Unit, TA-3 (Former Operable Unit 1114)**

SWMU 3-039(a) is a silver recovery unit used at the site of a photographic processing operation at TA-3. Silver halide film was processed through a developer and then a fixer solution. From 1979, silver was reclaimed from the fixer solution for recycling purposes. The canisters used for this purpose were fitted with inlet and outlet valves for receiving and dispelling fixer solution. Silver was the only RCRA constituent that resulted from this recovery process operation. There were no reported spills or leaks associated with the silver recovery unit used in this building. The recovery canisters were collected by the Waste Management Group (ESH-19) and either stored or processed at TA-54, LANL's permitted waste disposal area. The silver recovery unit was contained within the building during the entire time of its operation. No reported spills or leaks were associated with unit while it was in operation. Therefore, there was no release of silver to the environment and SWMU 3-039(a) is appropriate for NFA under Criterion 3.

**3-3 SWMU 8-007 Silver Recovery Unit, TA-8 (Former Operable Unit 1157)**

SWMU 8-007 was a silver recovery unit used at the site of an x-ray processing operation at TA-8. Silver halide film was processed through a developer and then a fixer. Silver was reclaimed from the fixer solution for recycling purposes. The canisters used for this purpose were fitted with inlet and outlet valves for receiving and dispelling fixer solution. Silver was the only RCRA constituent that resulted from this recovery process operation. There were no reported spills or leaks associated with the silver recovery unit used in this building. The silver recovery unit was contained within the building during the entire time of its operation. No reported spills or leaks were associated with the unit while it was in operation. The silver recovery unit has subsequently been removed the building. Therefore, there was no release of silver to the environment and SWMU 8-007 is appropriate for NFA under Criterion 3.

**3-4 SWMU 16-012(a, b, c, e, f, g, h, o, q, v, w, y, z) Container Storage-Rest House, TA-16 (Former Operable Unit 1082)**

Rest houses are auxiliary buildings that function as intermediate storage areas for raw explosives being delivered to process buildings, for finished products ready for transport, or for scrap being removed for disposal. The TA-16 rest houses were constructed in the late 1940s and early 1950s. These rest houses have no exterior drains. All rest houses are currently part of active operations, managed under rigid safety procedures. Containerized HE material is delivered to and from rest houses under strictly controlled

operating procedures. Rest houses are cleaned and maintained on regular schedules. Then, cleaning water and all materials are collected, packaged, and transported to the TA-16 burning ground for treatment. Recent field screening indicates that no HE material has leaked or spread from any of these structures to the exterior loading docks. SWMUs 16-012 (a,b,c,e,f,g,h,o,q,v,w,y,z) have no exterior drains and have no pathways by which a release to the environment could occur. These SWMUs are appropriate for NFA under Criterion 3.

**3-5 SWMU 16-025(g2) Magazine, TA-16 (Former Operable Unit 1082)**

TA-16-108 was a 6-ft<sup>2</sup> storage building built in mid-1944 on the western edge of S-Site. According to a former site worker, the building was used for the storage of non-HE materials such as aluminum powder, lead oxide, and barium nitrate, but he did not rule out the storage of small quantities of containerized HE. The building was destroyed in 1950 for the construction of State Road 501. If HE were stored at this location, it would have been in some type of containerized or packaged form. No machining or shaping was ever done at this location, and there were never any documented cases of a release to the environment. Based on a review of aerial photographs, TA-16-108 is now under or in the immediate vicinity of the disturbed soil area associated with the construction of State Road 501. Because it is unlikely that any release to the environment has occurred at this site, SWMU 16-025(g2) is appropriate for NFA under Criterion 3.

**3-6 SWMU 53-007(b) Aboveground Storage Tanks, TA-53 (Former Operable Unit 1100)**

SWMU 53-007(b) is identified as two tanks located in Building TA-53-3. One tank, built in 1974, is stainless steel and measures 4 ft in diameter by 4 ft high. Both tanks were located below the hot cell room in Experimental Area A. The tanks contained waste solvents, organics, and carcinogens. These wastes were reportedly picked up by EM-7. The tanks were located during an on-site inspection. Both are inactive and have been disconnected from waste lines. Laboratory staff indicated that the tanks would be removed. Because no release to the environment has occurred at this site, SWMU 53-007(b) is appropriate for NFA under Criterion 3.

***NFA Criterion 4. There was a release, but the site was characterized and/or remediated under another authority which adequately addressed corrective action, and documentation, such as a closure letter, is available.***

**4-1 Storage Areas, TAs 3, 14, 16 (Former Operable Units 1114, 1085, and 1082)**

The following sites are either satellite storage areas or less-than-ninety-day storage areas. No historical releases are known to have occurred at these sites. Satellite accumulation areas and less-than-ninety-day storage areas are active units that are currently regulated under 40 CFR 262, Standards Applicable to Generators of Hazardous Waste. LANL conducts training classes for the operation of these areas, inspects, and has institutional controls governing the closure of these units. The NMED also performs annual inspections.

SWMU 03-001(a)	Less-than-ninety-day	TA-3, Former Operable Unit 1114
SWMU 03-001(b)	Satellite Accumulation Area	TA-3, Former Operable Unit 1114
SWMU 03-001(c)	Less-than-ninety-day	TA-3, Former Operable Unit 1114
SWMU 03-002(b)	Satellite Accumulation Area	TA-3, Former Operable Unit 1114
SWMU 14-004(b)	Satellite Accumulation Area	TA-14, Former Operable Unit 1085
SWMU 16-012(d)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(i)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082

SWMU 16-012(j)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(l)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(m)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(n)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(p)	Less-than-ninety-day	TA-16, Former Operable Unit 1082
SWMU 16-012(t)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(u)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082
SWMU 16-012(x)	Satellite Accumulation Area	TA-16, Former Operable Unit 1082

If a release occurred at one of these areas, it would be cleaned up immediately in accordance with LANL's Spill Prevention Countermeasures and Control Plan, and/or administrative requirements. Because any releases will be cleaned up immediately, these units do not have the potential to become historical release sites. Therefore, these areas will continue to be regulated under 3004(a) of the RCRA, and not 3004(u), Hazardous and Solid Waste Amendments. These SWMUs are appropriate for NFA under Criterion 4.

**4-2 SWMU 3-035(a) Underground Storage Tank, TA-3 (Former Operable Unit 1114)**

SWMU 3-035(a) was a 3,000-gal. underground diesel storage tank that has undergone regulatory closure under RCRA and NMED underground storage tank (UST) regulations. This tank was installed in 1977 at the TA-3 service station on Parry Road. Due to failure of a tightness test (an annual inspection) the tank was removed along with approximately 20 yd<sup>3</sup> of soil, in accordance with the procedures described in Part XII, Section 1209 of the 1991 New Mexico UST regulations. SWMU 3-035(a) is appropriate for NFA under Criterion 4.

**4-3 SWMU 3-035(b) Underground Storage Tank, TA-3 (Former Operable Unit 1114)**

SWMU 3-035(b) is an 800-gal. underground diesel storage tank located near the Central Intrusion Detection Alarm Station, TA-3-440. This tank supplied the emergency electrical generator for the facility and never leaked; it was scheduled for replacement under UST guidelines. The tank was removed and officially closed following NMED UST regulations on September 29, 1993. SWMU 3-035(b) is appropriate for NFA under Criterion 4.

**4-4 SWMU 15-014(m) Active Drainline and Outfall (Former Operable Unit 1086)**

SWMU 15-014(m) is an operational outfall permitted under National Pollutant Discharge Elimination System (NPDES) Permit Number 04A143. This drainline and outfall handled noncontact cooling water from Building TA-15-306. SWMU 15-014(m) is appropriate for NFA under Criterion 4.

**4-5 SWMU 16-010(g) Wastewater Treatment Facility (Former Operable Unit 1082)**

SWMU 16-010(g) is a carbon filter/treatment unit constructed in 1988 to treat wastewater draining from pressure filter tanks. The drainage is permitted under NPDES Permit Number 05A055. SWMU 16-010(g) is appropriate for NFA under Criterion 4.

***NFA Criterion 5. The SWMU has been characterized or remediated in accordance with current applicable state or federal regulations, and the available data indicate that contaminants pose an acceptable level of risk under current and projected future land use.***

**5-1 SWMU 3-020(a) Disposal Pit, TA-03 (Former Operable Unit 1114)**

In the SWMU Report (LANL 1990), SWMU 3-020(a) was described as a covered pit on the east side of TA-3-287 that contained a buried 32-gal. drum filled with gravel and fitted with a screen. The SWMU Report states that "There is a pipe running into the pit with the screen and pebbles below it. The area around the pit appeared oily. An employee indicated that the pit was used to discharge liquids from the air compressor system at TA-3-287. This pit has been inactive since 1989, when the drum, pebbles, and surrounding soil were removed by the user group (facility)". The pit was used to bleed condensate and compressor oil leakage from the air compressor tank. The air compressor uses a pure petroleum-based (no detergent or additives) oil. This oil is equivalent to 30W viscosity-type motor oil. Johnson Controls removed the pit in 1990. In 1991, the area was graded and paved as part of a parking lot constructed between TA-3-105 and TA-3-287. Substances deposited by the following operations included only oil and water. The former location of SWMU 3-020(a) is in the middle of the TA-3 complex, which is in an area that is currently 100% developed and used for research and development work. The former location of the SWMU is covered by graded fill and asphalt pavement. Any potentially remaining residuals are inaccessible to potential receptors and therefore pose no unacceptable risk to human or ecological receptors. SWMU 3-020(a) is appropriate for NFA under Criterion 5.

**5-2 SWMU 21-024(m) Drainline, TA-21 (Former Operable Unit 1106)**

SWMU 21-024(m) was identified as 8-in vitrified clay pipe that exited building TA-21-209, the high-temperature chemistry laboratory, and continued south toward Los Alamos Canyon. The pipe was removed during the construction of a storm drain. SWMU 21-024(m) was characterized in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan. The results of the investigations were reported in the February, 1994, RFI Phase Report 1C. No organic analytes were detected in this investigation; nor were any inorganic analytes detected above background values. Radionuclides were elevated, but not above levels exceeding TA-21 baseline values attributable to airborne deposition processes occurring mesa-wide. These results indicate that no releases of hazardous constituents occurred from this site. Based on this investigation no contaminants of concern were identified. Therefore SWMU 21-024(m) is appropriate for NFA under Criterion 5.

**5-3 SWMU 21-027(b) Drainline, TA-21 (Former Operable Unit 1106)**

SWMU 21-027(b) consisted of a 4-in. steel drainline that extended from the catch basin around fuel tank TA-21-47 south toward Los Alamos Canyon. The line drained storm water runoff from a bermed area. The drainline was removed in March of 1965. SWMU 21-027(b) was characterized in 1992 according to the sampling and analysis plans presented in the TA-21 RFI Work Plan. The results of the investigations were reported in the February, 1994, RFI Phase Report 1C. No organic analytes were detected in this investigation; nor were any inorganic analytes detected above background values. Radionuclides were elevated, but not above levels exceeding TA-21 baseline values attributable to airborne deposition processes occurring mesa-wide. These results indicate that no releases of hazardous constituents occurred from this site. Based on this investigation no contaminants of concern were identified. Therefore SWMU 21-027(b) is appropriate for NFA under Criterion 5.

## **J. SUPPORTING DOCUMENTATION**

Los Alamos National Laboratory, May 1991. "TA-21 Operable Unit RFI Work Plan for Environmental Restoration," Volumes I-III, Los Alamos National Laboratory Report LA-UR-91-962, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1992. "RFI Work Plan for Operable Unit 1071," Los Alamos National Laboratory Report LA-UR-92-810, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1992. "RFI Work Plan for Operable Unit 1078," Los Alamos National Laboratory Report LA-UR-92-838, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1992. "RFI Work Plan for Operable Unit 1122," Los Alamos National Laboratory Report LA-UR-92-925, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1992. "RFI Work Plan for Operable Unit 1129," Los Alamos National Laboratory Report LA-UR-92-800, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1992. "RFI Work Plan for Operable Unit 1148," Los Alamos National Laboratory Report LA-UR-92-855, Los Alamos, New Mexico.

Los Alamos National Laboratory, June 1993. "RFI Work Plan for Operable Unit 1130," Los Alamos National Laboratory Report LA-UR-93-1152, Los Alamos, New Mexico.

Los Alamos National Laboratory, June 1993. "RFI Work Plan for Operable Unit 1132," Los Alamos National Laboratory Report LA-UR-93-768, Los Alamos, New Mexico.

Los Alamos National Laboratory, July 1993. "RFI Work Plan for Operable Unit 1082," Los Alamos National Laboratory Report LA-UR-93-1196, Los Alamos, New Mexico.

Los Alamos National Laboratory, July 1993. "RFI Work Plan for Operable Unit 1086," Los Alamos National Laboratory Report LA-UR-92-3968, Los Alamos, New Mexico.

Los Alamos National Laboratory, July 1993. "RFI Work Plan for Operable Unit 1114," Los Alamos National Laboratory Report LA-UR-93-1000, Los Alamos, New Mexico.

Los Alamos National Laboratory, July 1993. "RFI Work Plan for Operable Unit 1157," Los Alamos National Laboratory Report LA-UR-93-1230, Los Alamos, New Mexico.

Los Alamos National Laboratory, August 1993. "RFI Work Plan for Operable Unit 1111," Los Alamos National Laboratory Report LA-UR-93-2166, Los Alamos, New Mexico.

Los Alamos National Laboratory, August 1993. "RFI Work Plan for Operable Unit 1140," Los Alamos National Laboratory Report LA-UR-93-1940, Los Alamos, New Mexico.

Los Alamos National Laboratory, February 28, 1994. "Phase Report 1C, TA-21 Operable Unit RCRA Facility Investigation, Outfalls Investigation," Los Alamos National Laboratory Report LA-UR-94-228, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1994. "RFI Work Plan for Operable Unit 1082," Addendum 1, Los Alamos National Laboratory Report LA-UR-94-1580, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1994. "RFI Work Plan for Operable Unit 1085," Los Alamos National Laboratory Report LA-UR-94-1033, Los Alamos, New Mexico.

Los Alamos National Laboratory, May 1994. "RFI Work Plan for Operable Unit 1100," Los Alamos National Laboratory Report LA-UR-94-1097, Los Alamos, New Mexico.

Los Alamos National Laboratory, March 1995. "Request for Permit Modification, Units Proposed for NFA," Los Alamos National Laboratory Report LA-UR-95-767, Los Alamos, New Mexico.

Los Alamos National Laboratory, July 1995. "RFI Work Plan for Operable Unit 1114, Addendum 1," Los Alamos National Laboratory Report LA-UR-95-731, Los Alamos, New Mexico.

Los Alamos National Laboratory, September 1995. "Request for Permit Modification, Units Proposed for NFA," Los Alamos National Laboratory Report LA-UR-95-3319, Los Alamos, New Mexico.

Los Alamos National Laboratory, September 1996. "Request for Permit Modification, Units Proposed for NFA," Volumes I and II, Los Alamos National Laboratory Report LA-UR-96-3357, Los Alamos, New Mexico.

Los Alamos National Laboratory, April 1997. "Spill Prevention Countermeasures and Control Plan," Revision 4, Los Alamos National Laboratory Report, Los Alamos, New Mexico.

C:\DOCUMENT\LANL96-1\NFAS\NFALANL2.SOB.A.