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GOVERNOR

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MARK E. WEIDLER
SECRETARY
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DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 29, 1997

Mr. G. Thomas Todd, Area Manager
Los Alamos Area Office
Department of Energy
528 35th Street
Los Alamos, New Mexico 87544

Dr. Sigfried Hecker, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, New Mexico 87545

RE: Proposal to Approve: No Further Action for 3 Solid Waste Management Units (SWMUs) at Los Alamos National Laboratory (LANL)

Dear Mr. Todd and Dr. Hecker:

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 three (3) Solid Waste Management Units (SWMUs) at Los Alamos National Laboratory and deletion of these SWMUs from Tables A and C of the Resource Conservation and Recovery Act (RCRA) permit issued to the DOE/LANL. The 3 SWMUs were contained in the *Request for Permit Modification: Units Proposed for No Further Action* submitted by DOE/LANL, dated September 1996. The request included 40 SWMUs to be considered for removal from the permit of which NMED has deemed only 3 SWMUs as being appropriate for removal off of the permit. These SWMUs are identified in Attachment A.

HRMB issued a Notice of Determination/Notice of Deficiency(NODT/NOD) and Approval for the proposed September 1996 NFAs on June 9, 1997. HRMB received an initial response, July 2, 1997, to the NODT/NOD addressing 13 SWMUs of the total 37 SWMUs requiring additional information. The response for the other 24 SWMUs is expected from DOE/LANL on October 30, 1997. When a complete response to the 37 SWMUs is received HRMB will review them for adequacy.



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RED COPY 14

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A public notice of this proposed action is scheduled for publication in the **September 29, 1997** issue of the **Albuquerque Journal** and in the **September 29, 1997** issue of **The New Mexican**. The 45-day public comment period will extend from **September 29, 1997** through **November 12, 1997**.

Enclosed for your review are a copy of Tables A and C showing proposed changes in redline and strikeout and a copy of Tables A and C as they would appear after final approval. Also enclosed are copies of the public notice, the fact sheet sent to people and organizations on the LANL mailing lists, 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 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

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cc: T. Baca, LANL EM-DO, MS J591
R. Dinwiddie, NMED HRMB
B. Garcia, NMED HRMB
J. Jansen, LANL EM/ER, MS M992
J. Kieling, NMED HRMB
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
E. Kelley, NMED SWQB
T. Taylor, DOE LAAO, MS A316
S. Yanicak, NMED DOE OB, MS J993
File: HSWA LANL G/P '97
Track: LANL, 9/29/97, DOE/LANL, HRMB/jek, RE, File

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ATTACHMENT A

SOLID WASTE MANAGEMENT UNITS TO BE REMOVED FROM TABLES A AND C OF RCRA PERMIT NO. NM0890100515

1. SWMU 3-024, Tank and/or Associated Equipment, Filed Unit 1 (former operable Unit 1114)
2. SWMU 3-045(d), Above Ground Storage Tank, Field Unit 1 (former Operable Unit 1114)
3. SWMU 52-002(e), Septic Tank and Seepage Pit, Field Unit 4 (former Operable Unit 1129)

STATEMENT OF BASIS

**Approval of No Further Action
for 3 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 / New Mexico (DOE/LANL) request to remove 3 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 1940's. It is a 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 Operating 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 1100 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 September 30, 1996, DOE/LANL submitted a request to remove 42 SWMUs from its HSWA corrective action module. NMED reviewed the request and determined that 3 of the 42 SWMUs are appropriate for No Further Action (NFA). Two SWMUs on the HSWA corrective action module will be removed through a Class 1 permit modification and the remaining 37 SWMUs will be the subject of further study or investigation.

C. INVESTIGATION RESULTS

During investigation of the SWMUs at LANL, it was determined that the sites were identified as SWMUs which 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 which LANL requested for no further action (NFA) in their Class 3 permit modification dated September 30, 1996. LANL has developed no further action criteria which is employed during the investigation of SWMUs. The 42 SWMUs proposed for NFA are categorized based on this NFA criteria. At this time, NMED has identified three of these sites as appropriate for NFA. A brief description of each of the SWMUs proposed for NFA are identified in **Section I**. A more detailed description can be found in the Request for Permit Modification from LANL dated September 1996, or in LANL's RCRA Facility Investigation Work Plans as referenced in the permit modification request.

D. PERMIT MODIFICATION

A copy of the public notice, fact sheet, modified permit, and NMED's Statement of Basis may be reviewed at:

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

Hazardous and Radioactive Materials
2044-A Galisteo
Santa Fe, New Mexico 87505

E. SELECTED REMEDY

NMED's determination that No Further Action is required at these SWMUs is based upon field surveys, historical records, aerial photographs, and employee interviews which 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 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.
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

A public meeting was held by LANL on November 7, 1996 at the Sweeney Convention Center, Santa Fe, New Mexico. 14 people attended the meeting, including representatives from DOE, LANL, and NMED. There have been no written comments to NMED.

NMED issued a Public Notice on September 29, 1997. The Public Notice announced the beginning of a 45-day comment period.

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 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. SWMU 3-045(d), Above Ground Storage Tank, Field Unit 1 (former Operable Unit 1114)

SWMU 3-045(d) is an aboveground storage tank located at the Power Plant, TA-3-22 within Technical Area 3. This SWMU was duplicated as SWMU 3-014(q) as indicated in the SWMU Report (LANL 1990, 0145). SWMU numbers 3-045(d) and 3-014(q) were both assigned to structure TA-3-336, a storage tank. The Field Unit opted to retain the number 3-014(q) for addressing the storage tank. SWMU 3-045(d) is on the HSWA module Table C. SWMU 3-045(d) is appropriate for NFA because it is a duplicate SWMU and has been investigated as SWMU 3-014(q) in the RFI Work Plan for Operable Unit (OU) 1114 (LANL 1993). The SWMU Report descriptions of both SWMUs indicates verification of the error. SWMU 3-045(d) is appropriate for NFA under Criterion 1.

2. **SWMU 52-002(e), Septic Tank and Seepage Pit (Active), Field Unit 4 (former Operable Unit 1129)**

In the SWMU Report (LANL 1990, 0145), SWMU 52-002(e) is described as an active 1,000-gallon septic tank, TA 52-49, and its associated seepage pit, TA 52-50. The septic tank/seepage pit were located in the western portion of Technical Area 52 of the former OU 1129. In May of 1989, the western portion of TA-52 was reassigned as TA-63; septic tank TA-52-49 and its associated seepage pit, TA-52-50, were consequently reassigned as structures TA-63-12 and TA-63-13. The Structure Number Log maintained by LANL's Facility Engineering Department recorded that structures TA-52-49 and TA-52-50 were renumbered as TA-63-12 and TA-63-13. The SWMU Report, however, failed to consider the reassignment of the western portion of TA-52. It not only included the reassigned area as a portion of TA-52, but it also included that same area under its new designation of TA-63. As a component of TA-63, the 1,000-gallon septic tank and its associated seepage pit, TA-63-12, was assigned a second SWMU number, 63-001(a) (LANL 1990, 0145). Thus, the septic tank/seepage pit received two different SWMU numbers, 52-002(e) and 63-001(a). The Field Unit opted to retain the number 63-001(a) for investigating the SWMU. SWMU 52-002(e) is appropriate for NFA because it is a duplicate SWMU and has been investigated as SWMU 63-001(a) in the RFI Work Plan for OU 1129 (LANL 1992). Copies of the SWMU Report descriptions of both SWMUs and Engineering Records verify the error in duplication. SWMU 63-001(a) is on the HSWA module Table A. SWMU 52-002(e) is appropriate for NFA under Criterion 1.

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.

3. **SWMU 3-024, Tank and/or Associated Equipment, Field Unit 1 (former Operable Unit 1114)**

SWMU 3-024 is located in former OU 1114 within TA-3. SWMU 3-024 is a pump pit (concrete vault) built of reinforced concrete with a steel and concrete cover. The pump pit is 19.6 ft long x 13.6 ft wide x 11.8 ft deep, with a capacity of 3,200 ft³. The system is a closed-circuit pump unit used to pump noncontact cooling water for electric furnaces located at building TA-3-141, the Rolling Mill Facility located within the Sigma Complex. The noncontact cooling water flows through a roof-mounted water chiller, through operating equipment in the building, and back through the pump. The unit has been active since 1962. No release to the environment has occurred or will likely occur because more than 3,200 ft³ of water would have to accumulate in order for the tank to overflow. No contaminants are associated with the pump pit because it handles only noncontact cooling water for electric furnaces. SWMU 3-024 is appropriate for NFA under Criterion 2.

J. SUPPORTING DOCUMENTATION

Los Alamos National Laboratory, November 1996. "Request for Permit Modification: Units Proposed for NFA," Volumes 1 and II, Los Alamos National Laboratory Report LA-UR-96-3357, 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. (LANL 1995)

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. (LANL 1993)

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. (LANL 1992)

Los Alamos National Laboratory, November 1990. "Solid Waste Management Units Report," Volumes 1 through IV, Los Alamos National Laboratory Report No. LA-UR-92-3400, prepared by International Technology Corporation under Contract 9-XS8-0062R-1, Los Alamos, New Mexico. (LANL 1990, 0145)

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FACT SHEET

September 15, 1997

**NOTICE OF INTENT
TO APPROVE A MODIFICATION TO
RCRA PERMIT NO. NM0890010515
US DEPARTMENT OF ENERGY/LOS ALAMOS NATIONAL LABORATORY
NEW MEXICO**

Action: Approval, subject to public review and input, of a Class III permit modification to remove three (3) Solid Waste Management Units (SWMUs) from a RCRA permit.

Permittee: US Department of Energy/Los Alamos National Laboratory, New Mexico

Permit No.: NM0890010515

Reason for Action: The proposed modification will remove 3 SWMUs from **Table A** and **Table C** of the permit. Tables A and C list sites at LANL where Corrective Action to characterize and/or remediate past releases of hazardous waste or hazardous waste constituents may be necessary.

On September 30, 1996, DOE/LANL proposed 42 SWMUs for NFA. At this time, NMED has identified three (3) of these sites as appropriate for NFA. The three sites proposed for NFA in this action and justification for removal of these sites from LANL's permit are:

1. **Field Unit 1, SWMU 3-024, Tank and/or Associated Equipment - NFA** approved because there is no evidence that the site was used for the management of RCRA hazardous waste and/or hazardous waste constituents.
2. **Field Unit 1, SWMU 3-045(d), Storage Tank (Above Ground) - NFA** approved because the site was found to be a duplicate SWMU of SWMU 3-014(q).
3. **Field Unit 4, SWMU 52-002(e), Septic Tank and Seepage Pit (Active) - NFA** approved because it is a duplicate SWMU of SWMU 63-001(a).

**Availability
of
Additional
Information:**

A Statement of Basis has been prepared to provide additional information on site history, evaluation of relevant investigations, and basis for the decision to approve NFA status.

The administrative record for this proposed action consists of this fact sheet, the statement of basis, the legal notice, the proposed revised Tables A and C, and a summary of public involvement activities. The administrative record may be reviewed **from September 29 through November 12, 1997** at the following locations:

New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
P.O. Box 26110
2044-A Galisteo Street
Santa Fe, New Mexico 87502
(505) 827-1561

Los Alamos National Laboratory Community Reading Room
1350 Central Avenue, Suite 101
Los Alamos, New Mexico 87544

To obtain a copy of the administrative record or any part thereof, please contact Mr. John Kieling at the New Mexico Environment Department at the above address. Any person who wishes to comment on this permit modification or to request a public hearing should submit written comments/requests, along with the commenter's/requestor's name and address, to John Kieling at the above address. Requests for hearing should include a statement of the nature of the issues proposed to be raised. Only comments/requests received by **November 12, 1997** will be considered. NMED will provide a 30-day notice of the public hearing, if scheduled.

**Final
Decision:**

All written comments and issues raised at a Public Hearing, if held, will become part of the administrative record and will be considered in formulating the final decision. NMED may approve, or modify and approve, the requested permit modification based on the comments received. NMED will notify DOE/LANL and each person who submitted a written comment during the public comment period or testimony at a Public Hearing of the final decision, including any approved change to the proposed modification, and a detailed statement of reasons for any such change. The final decision will be made according to applicable State and Federal laws.

LEGAL NOTICE NO. 001

**NEW MEXICO ENVIRONMENT DEPARTMENT
HAZARDOUS AND RADIOACTIVE MATERIALS BUREAU**

Santa Fe, New Mexico 87502

September 15, 1997

**NOTICE OF INTENT
TO APPROVE A MODIFICATION TO
RCRA PERMIT NO. NM0890010515
US DEPARTMENT OF ENERGY/LOS ALAMOS NATIONAL LABORATORY
NEW MEXICO**

The State of New Mexico was authorized in 1986 to operate a hazardous waste management program in lieu of the Federal program for those portions of the Resource Conservation and Recovery Act (RCRA) in effect prior to the enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA). On January 2, 1996, the State was authorized to operate a hazardous waste management program for parts of HSWA. HSWA imposes additional Corrective Action requirements on hazardous waste management facilities for releases to the environment.

Under authority of the New Mexico Hazardous Waste Act (Section 74-4-1 *et seq.*, NMSA 1978, as amended, 1992) and the New Mexico Hazardous Waste Management Regulations (20 NMAC 4.1), the New Mexico Environment Department (NMED) can approve or deny hazardous waste permits and closure plans, permit modifications, and amendments.

Under this authority, NMED intends to approve, pending public input into this decision, a modification to the RCRA permit issued to the US Department of Energy/Los Alamos National Laboratory (DOE/LANL), New Mexico, Permit No. NM08900515. LANL is a contractor-operated research facility under the administration of DOE.

The proposed modification will remove three (3) Solid Waste Management Units (SWMUs) from Tables A and C of the HSWA permit module. Tables A and C lists sites at LANL where Corrective Action to characterize and/or remediate past releases of hazardous wastes or hazardous waste constituents may be necessary. The basis for removal of these sites from the permit is approval of No Further Action (NFA) status. The three sites and justification for removal of these sites from LANL's permit are:

1. **Field Unit 1, SWMU 3-024, Tank and/or Associated Equipment** - NFA approved because there is no evidence that the site was used for the management of RCRA hazardous waste and/or hazardous waste constituents.

2. **Field Unit 1, SWMU 3-045(d), Storage Tank (Above Ground)** - NFA approved because the site was found to be a duplicate SWMU of SWMU 3-014(q).
3. **Field Unit 4, SWMU 52-002(e), Septic Tank and Seepage Pit (Active)** - NFA approved because the site was found to be a duplicate SWMU of SWMU 63-001(a).

The administrative record for this proposed action consists of this legal notice, a fact sheet, a statement of basis, the proposed revised Tables A and C, and a summary of public involvement activities. The administrative record may be reviewed from **September 29 through November 12, 1997** at the following locations:

New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
P.O. Box 26110
2044-A Galisteo Street
Santa Fe, New Mexico 87502
(505) 827-1561

Los Alamos National Laboratory Community Reading Room
1350 Central Avenue, Suite 101
Los Alamos, New Mexico 87544

To obtain a copy of the administrative record or any part thereof, please contact John Kieling at the New Mexico Environment Department at the above address. Any person who wishes to comment on this permit modification or to request a public hearing should submit written comments/requests, along with the commenter's/requestor's name and address, to John Kieling at the above address. Requests for hearing should include a statement of the nature of the issues proposed to be raised. Only comments/requests received **by November 12, 1997** will be considered. NMED will provide a 30-day notice of the public hearing, if scheduled.

All written comments and issues raised at a Public Hearing, if held, will become part of the administrative record and will be considered in formulating the final decision. NMED may approve, or modify and approve, the requested permit modification based on the comments received. NMED will notify DOE/LANL and each person who submitted a written comment during the public comment period or testimony at a Public Hearing of the final decision, including any approved change to the proposed modification, and a detailed statement of reasons for any such change.

Modifications to TABLE A and TABLE C

Note:

This appendix contains the proposed modification to Tables A and C of the LANL HSWA Module. The changes are indicated by using ~~strikeout~~ and redlined text. The ~~strikeout~~ text indicates deletions to the text. The redlined (shaded) text indicates new text. The date next to the changes is the document request date from the LANL proposal. The number at the bottom of each technical area denotes the number of SWMUs for that area. The number at the end of the appendix indicates the total number of SWMUs on the HSWA Module.

TABLE A

Technical Area 0

SWMU Number

0-001
0-003
0-005
0-011 (a)
0-011 (c-e)
0-012
0-016
0-017
0-018 (a)
0-019
0-028 (a-b)
0-030 (a-b)
0-030 (g)
0-030 (l-m)
0-033
0-039

(21)

Technical Area 1

1-001 (a-o)
1-001 (a-g)
1-001 (m)
1-001 (o)
1-001 (s-u)
1-002
1-003 (a)
1-003 (d-e)
1-006 (a-d)
1-006 (h)
1-006 (n-o)
1-007 (a-e)
1-007 (j)
1-007 (l)

(36)

Technical Area 2

2-005
2-006 (a-b)
2-007
2-008 (a-b)
2-009 (a-c)

(9)

Technical Area 3

3-001 (a-c)
3-001 (k)
3-002 (b-c)
3-002(c)
3-003 (a-c)

Technical Area 3 Cont.

3-003(a-b)
3-009 (a-h)
3-009 (a)
3-009 (d)
3-009 (h)
3-010 (a)
3-012 (a-b)
3-012 (b)
3-013 (a)
3-014 (a-u)
3-015
3-018
3-020 (a)
3-026 (d)
3-028
3-033
3-035 (a-b)
3-036 (a)
3-036 (c-d)
3-037
3-038 (a-b)
3-039 (a)
3-043 (e)
3-044 (a)
3-056 (a)
3-056 (c)

(61)

Technical Area 4

4-001
4-002
4-003 (a-b)

(4)

Technical Area 5

5-001 (a-b)
5-002
5-003
5-004
5-005 (a-b)
5-006 (b,c,e,h)

(11)

Technical Area 6

6-001 (a-b)
6-002
6-003 (a)
6-003 (c-h)
6-005
6-006
6-007 (a-g)

(19)

Technical Area 7

7-001 (a-d)
7-003 (c-d)

(6)

Technical Area 8

8-002
8-003 (a-c)
8-003 (a)
8-004 (a-d)
8-005
8-006 (a-b)

8-007
8-009 (a)
8-009 (d-e)
C-8-010

(16)

Technical Area 9

9-001 (a-d)
9-002
9-003 (a-i)
9-003 (a)
9-003 (b)
9-003 (d)
9-003 (e)
9-003 (g-i)
9-004 (a-o)
9-005 (a-h)
9-005 (a)
9-005 (d)
9-006
9-007
9-008 (b)
9-009
9-013
C-9-001

(43)

Technical Area 10

10-001 (a-d)
10-002 (a-b)
10-003 (a-o)
10-004 (a-b)
10-005
10-006
10-007

(26)

Technical Area 11

11-001 (a-c)

Technical Area 11 Cont.

11-002
11-004 (a-e)
11-005 (a-c)
11-006 (a-d)
11-007
11-009
11-011 (a-d)
11-011 (a)
11-011 (b)
11-011 (d)

(22)

Technical Area 12

12-001 (a-b)
12-002

(3)

Technical Area 13

13-001
13-002
13-003 (a)
13-004

(4)

Technical Area 14

14-002 (a-f)
14-003
14-004 (b)
14-005
14-006
14-007
14-009
14-010

(13)

Technical Area 15

15-002
15-003
15-004 (a-c)
15-004 (f-g)
15-004 (i)
15-006 (a-d)
15-007 (a-d)
15-007(a-c)
15-008 (a-d)
15-009 (a-c)
15-009(a)
15-009 (e-k)
15-009(e-g)
15-009(i-k)
15-010 (a-c)
15-011 (a-c)
15-012 (a-b)

Technical Area 15 Cont.

15-014 (a-b)
15-014 (i-m)
15-014(i-l)

(45)

Technical Area 16

16-001 (a-e)
16-003 (a-o)
16-004 (a-f)
16-005 (g)
16-005 (i)
16-005 (n-o)
16-005 (n)
16-006 (a-f)
16-006 (a)
16-006 (c-e)
16-007 (a)
16-008 (a)
16-009 (a)
16-010 (a-n)
16-010 (a-f)
16-010 (h-n)
16-012 (a-z)
16-012 (a-c)
16-012 (e-h)
16-012 (k)
16-012 (o)
16-012 (q)
16-012 (r)
16-012 (s)
16-012 (v)
16-012 (w)
16-012 (y)
16-012 (z)
16-013
16-016 (a-c)
16-018
16-019
16-020
16-021 (a)
16-021 (c)
16-026 (b-e)
16-026 (h2)
16-026 (j2)
16-026 (v)
16-029 (a-g)
16-030 (h)
16-035
16-036

(105)

Technical Area 18

18-001 (a-c)
18-001(a-b)
18-002 (a-b)

Technical Area 18 Cont.

18-003 (a-h)
18-004 (a-b)
18-005 (a)
18-007
18-012 (a-b)

(19)

Technical Area 19

19-001
19-002
19-003

(3)

Technical Area 20

20-001 (a-c)
20-002 (a-d)
20-003 (a)
20-005

(9)

Technical Area 21

21-002 (a)
21-003
21-004 (b-c)
21-005
21-006 (a-e)
21-007
21-010 (a-h)
21-011 (a-g)
21-011 (i-k)
21-012 (a-b)
21-012 (b)
21-013 (a-e)
21-014
21-015
21-016 (a-c)
21-017 (a-c)
21-018 (a-b)
21-021
21-022 (a-j)
21-023 (a-d)
21-024 (a-o)
21-024(a-i)
21-024(l)
21-026 (a-b)
21-027 (a-d)
21-027(a)
21-027(c)
21-029

(83)

Technical Area 22

22-010 (a)

Technical Area 22 Cont.

22-010 (b)
22-011
22-012
22-014 (a-b)
22-015 (a-e)
22-016

(12)

Technical Area 26

26-001
26-002 (a-b)
26-003

(4)

Technical Area 27

27-001
27-002
27-003

(3)

Technical Area 31

31-001

(1)

Technical Area 32

32-001
32-002 (a-b)

(3)

Technical Area 33

33-001 (a-e)
33-002 (a-e)
33-003 (a-b)
33-004 (a-k)
33-004 (a-d)
33-004(a-c)
33-004 (g-k)
33-004(i-k)
33-004 (m)
33-005 (a-c)
33-006 (a-b)
33-007 (a-c)
33-008 (a-b)
33-009
33-010 (a-d)
33-010 (f-h)
33-010(g-h)
33-011 (a)
33-011 (c-e)
33-011(c-d)
33-012 (a)
33-013

Technical Area 33 Cont.

33-014
33-015
33-016
33-017

(52)

Technical Area 35

35-002
35-003 (a-q)
35-003 (a-h)
35-003 (j-o)
35-003 (q)
35-004 (a-b)
35-004 (e)
35-004 (g-h)
35-006
35-008
35-009 (a-e)
35-010 (a-d)
35-011 (a)
35-013 (a-d)
35-014 (a-b)
35-014 (e)
35-014 (g)
35-015 (a-b)
35-016 (a)
35-016 (c-d)
35-016 (i)
35-016 (k)
35-016 (m)
35-016 (o-q)

(54)

Technical Area 36

36-001
36-002
36-003 (a)
36-003(b)
36-003(c)
36-004 (d)
36-005
36-006
C-36-003

(9)

Technical Area 39

39-001 (a-b)
39-002 (a)
39-003
39-004 (a-e)
39-005
39-006 (a-b)
39-006(a)
39-007 (a)

Technical Area 39 Cont.
39-008

(14)

Technical Area 40

40-001 (a-c)
40-001 (b)
40-001 (c)
40-003 (a)
40-004
40-005
40-006 (a-c)
40-009
40-010

(11)

Technical Area 41

41-001
41-002 (a-c)

(4)

Technical Area 42

42-001 (a-c)
42-002 (b)
42-003

(5)

Technical Area 43

43-001 (a)
43-002

(2)

Technical Area 45

45-001
45-002
45-003
45-004

(4)

Technical Area 46

46-002
46-003 (a-h)
46-004 (a-h)
46-004 (b-h)
46-004 (a2-d2)
46-004 (m)
46-004 (p-z)
46-005
46-006 (a-d)
46-006 (f-g)
46-007
46-008 (a-g)

Technical Area 46 Cont.

46-008 (a)
46-008 (b)
46-008 (d-g)
46-009 (a-b)
46-010 (d)

(51)

Technical Area 48

48-002 (a-b)
48-003
48-004 (a-c)
48-005
48-007 (a-d)
48-007 (f)
48-010

(13)

Technical Area 49

49-001 (a-g)
49-003
49-004
49-005 (a)
49-006

(11)

Technical Area 50

50-001 (a)
50-002 (a-c)
50-004 (a-c)
50-006 (a)
50-006 (c-d)
50-009
50-011 (a)

(12)

Technical Area 52

52-001 (a-d)
~~52-002 (a-d)~~ SEPT 1996
~~52-002 (a-f)~~ SEPT 1996
~~52-002 (f)~~ SEPT 1996

~~(10)~~ SEPT 1996

~~(9)~~ SEPT 1996

Technical Area 53

53-001 (a-b)
53-002 (a-b)
53-005
53-006 (b-f)
53-007 (a-b)
53-007(a)

(12)

Technical Area 54

- 54-001 (a)
- 54-001 (c)
- 54-004 (excluding Shaft No. 9)
- 54-005
- 54-006
- 54-007 (a-c)
- 54-007 (a)
- 54-007 (c)
- 54-012 (b)
- 54-013 (a-b)
- 54-013 (b)
- 54-014 (b-d)
- 54-015 (h)
- 54-015 (k)
- 54-017
- 54-018
- 54-019
- 54-020

(20)

Technical Area 55

- 55-008
- 55-009

(2)

Technical Area 59

- 59-001

(1)

Technical Area 60

- 60-002
- 60-005 (a)
- 60-006 (a)
- 60-007 (a-b)

(5)

Technical Area 61

- 61-002
- 61-004(a)
- 61-005
- 61-006
- 61-007

(5)

Technical Area 63

- 63-001(a-b)

(2)

Technical Area 69

- 69-001

(1)

Technical Area 73

- 73-001 (a-d)
- 73-002
- 73-004 (a-d)
- 73-005
- 73-006

(11)

Total SWMUs in Table A = 892

891

TABLE C

**RFI Work Plan due
July 7, 1994:**

Technical Area 16

16-005 (a-f)
16-005 (h)
16-005 (j-m)
16-006 (g-i)
16-015 (a,b)
16-017
16-024(e)
16-025 (a)
16-025 (b-b2)
16-025 (c-c2)
16-025 (d-f)
16-025 (g-g2)
16-025 (h-z)
16-026 (i2)
16-026 (m-q)
16-026 (s)
16-026 (w)
16-028 (a)
16-029 (a2-h2)
16-029 (k-z)
16-031 (c-d)
16-031 (g)
16-032 (a)
16-032 (c-e)
16-034 (a-g)
16-034 (l-p)
C-16-025
C-16-026

Total SWMUs = 101

**RFI Work Plan due
July 7, 1995:**

Technical Area 16

16-016 (d-e)
16-016 (g)
16-025 (a2)
16-025 (d2)
16-025 (e2)
16-025 (f2)
16-025 (h2)
16-026 (a-a2)
16-026 (b2)
16-026 (c2)
16-026 (d2)
16-026 (e2)
16-026 (f-f2)
16-026 (g-g2)
16-026 (h-j)
16-026 (k-k2)
16-026 (l)
16-026 (r)
16-026 (t-u)
16-026 (x-z)
16-028 (b-e)
16-029 (h-j)
16-030 (a-c)
16-030 (e-f)
16-031 (a-b)
16-031 (e-f)
16-031 (h)
16-034 (h-k)

Total SWMUs = 51

**RFI Work Plan due
May 21, 1995:**

Operable Unit 1114

3-002(a)
3-002(d)
3-009(c)
3-009(i)
3-009(j)
3-011
3-019
3-021
~~3-024~~ SEPT 1996
3-025(a-b)
3-026(b-c)
3-029
3-031
3-032
3-034(a-b)
3-043(c)
~~3-045(a-c)~~ SEPT 1996
~~3-045(a-i)~~ SEPT 1996
~~3-045(e-i)~~ SEPT 1996
3-046
3-049(a-e)
3-050(a)
3-050(d-g)
3-052(a)
3-052(c)
3-052(e-f)
3-054(a-e)
3-055(a)
3-055(c-d)
3-056(d)
3-056(l-n)
3-059

Total SWMUs = 56

54 SEPT 1996

Proposed TABLE A and TABLE C

Note:

This appendix contains the proposed Tables A and C for the LANL HSWA Module. The number at the bottom of each technical area within parenthesis denotes the number of SWMUs for that area. The number at the end of the appendix indicates the total number of SWMUs on the HSWA Module.

TABLE A

Technical Area 0

SWMU Number

0-001

0-003

0-005

0-011 (a)

0-011 (c-e)

0-012

0-016

0-017

0-018 (a)

0-019

0-028 (a-b)

0-030 (a-b)

0-030 (g)

0-030 (l-m)

0-033

0-039

(21)

Technical Area 1

1-001 (a-o)

1-001 (a-g)

1-001 (m)

1-001 (o)

1-001 (s-u)

1-002

1-003 (a)

1-003 (d-e)

1-006 (a-d)

1-006 (h)

1-006 (n-o)

1-007 (a-e)

1-007 (j)

1-007 (l)

(36)

Technical Area 2

2-005

2-006 (a-b)

2-007

2-008 (a-b)

2-009 (a-c)

(9)

Technical Area 3

3-001 (a-c)

3-001 (k)

3-002 (b-c)

3-002(c)

3-003 (a-c)

Technical Area 3 Cont.

3-003(a-b)

3-009 (a-h)

3-009 (a)

3-009 (d)

3-009 (h)

3-010 (a)

3-012 (a-b)

3-012 (b)

3-013 (a)

3-014 (a-u)

3-015

3-018

3-020 (a)

3-026 (d)

3-028

3-033

3-035 (a-b)

3-036 (a)

3-036 (c-d)

3-037

3-038 (a-b)

3-039 (a)

3-043 (e)

3-044 (a)

3-056 (a)

3-056 (c)

(61)

Technical Area 4

4-001

4-002

4-003 (a-b)

(4)

Technical Area 5

5-001 (a-b)

5-002

5-003

5-004

5-005 (a-b)

5-006 (b,c,e,h)

(11)

Technical Area 6

6-001 (a-b)

6-002
6-003 (a)
6-003 (c-h)
6-005
6-006
6-007 (a-g)
(19)

Technical Area 7

7-001 (a-d)
7-003 (c-d)

(6)

Technical Area 8

8-002
8-003 (a-c)
8-003 (a)
8-004 (a-d)
8-005
8-006 (a-b)

8-007
8-009 (a)
8-009 (d-e)
C-8-010

(16)

Technical Area 9

9-001 (a-d)
9-002
9-003 (a-i)
9-003 (a)
9-003 (b)
9-003 (d)
9-003 (e)
9-003 (g-i)
9-004 (a-o)
9-005 (a-h)
9-005 (a)
9-005 (d)
9-006
9-007
9-008 (b)
9-009
9-013
C-9-001

(43)

Technical Area 10

10-001 (a-d)
10-002 (a-b)
10-003 (a-o)
10-004 (a-b)
10-005
10-006

10-007

(26)

Technical Area 11

11-001 (a-c)

Technical Area 11 Cont.

11-002
11-004 (a-e)
11-005 (a-c)
11-006 (a-d)
11-007
11-009
11-011 (a-d)
11-011 (a)
11-011 (b)
11-011 (d)

(22)

Technical Area 12

12-001 (a-b)
12-002

(3)

Technical Area 13

13-001
13-002
13-003 (a)
13-004

(4)

Technical Area 14

14-002 (a-f)
14-003
14-004 (b)
14-005
14-006
14-007
14-009
14-010

(13)

Technical Area 15

15-002
15-003
15-004 (a-c)
15-004 (f-g)
15-004 (i)
15-006 (a-d)
15-007 (a-d)
15-007(a-c)
15-008 (a-d)
15-009 (a-c)

15-009(a)
15-009 (e-k)
15-009(e-g)
15-009(i-k)
15-010 (a-c)
15-011 (a-c)
15-012 (a-b)
Technical Area 15 Cont.
15-014 (a-b)
15-014 (i-m)
15-014(i-l)

(45)

Technical Area 16

16-001 (a-e)
16-003 (a-o)
16-004 (a-f)
16-005 (g)
16-005 (i)
16-005 (n-o)
16-005 (n)
16-006 (a-f)
16-006 (a)
16-006 (c-e)
16-007 (a)
16-008 (a)
16-009 (a)
16-010 (a-n)
16-010 (a-f)
16-010 (h-n)
16-012 (a-z)
16-012 (a-c)
16-012 (e-h)
16-012 (k)
16-012 (o)
16-012 (q)
16-012 (r)
16-012 (s)
16-012 (v)
16-012 (w)
16-012 (y)
16-012 (z)
16-013
16-016 (a-c)
16-018
16-019
16-020
16-021 (a)
16-021 (c)
16-026 (b-e)
16-026 (h2)
16-026 (j2)
16-026 (v)
16-029 (a-g)
16-030 (h)
16-035
16-036

(105)

Technical Area 18

18-001 (a-c)
18-001(a-b)
18-002 (a-b)

Technical Area 18 Cont.

18-003 (a-h)
18-004 (a-b)
18-005 (a)
18-007
18-012 (a-b)

(19)

Technical Area 19

19-001
19-002
19-003

(3)

Technical Area 20

20-001 (a-c)
20-002 (a-d)
20-003 (a)
20-005

(9)

Technical Area 21

21-002 (a)
21-003
21-004 (b-c)
21-005
21-006 (a-e)
21-007
21-010 (a-h)
21-011 (a-g)
21-011 (i-k)
21-012 (a-b)
21-012 (b)
21-013 (a-e)
21-014
21-015
21-016 (a-c)
21-017 (a-c)
21-018 (a-b)
21-021
21-022 (a-j)
21-023 (a-d)
21-024 (a-o)
21-024(a-i)
21-024(l)
21-026 (a-b)
21-027 (a-d)
21-027(a)

21-027(c)
21-029

(83)

Technical Area 22

22-010 (a)

Technical Area 22 Cont.

22-010 (b)
22-011
22-012
22-014 (a-b)
22-015 (a-e)
22-016

(12)

Technical Area 26

26-001
26-002 (a-b)
26-003

(4)

Technical Area 27

27-001
27-002
27-003

(3)

Technical Area 31

31-001

(1)

Technical Area 32

32-001
32-002 (a-b)

(3)

Technical Area 33

33-001 (a-e)
33-002 (a-e)
33-003 (a-b)
33-004 (a-k)
33-004 (a-d)
33-004(a-c)
33-004 (g-k)
33-004(i-k)
33-004 (m)
33-005 (a-c)
33-006 (a-b)
33-007 (a-c)
33-008 (a-b)
33-009
33-010 (a-d)

33-010 (f-h)
33-010(g-h)
33-011 (a)
33-011 (c-e)
33-011(c-d)
33-012 (a)
33-013

Technical Area 33 Cont.

33-014
33-015
33-016
33-017

(52)

Technical Area 35

35-002
35-003 (a-q)
35-003 (a-h)
35-003 (j-o)
35-003 (q)
35-004 (a-b)
35-004 (e)
35-004 (g-h)
35-006
35-008
35-009 (a-e)
35-010 (a-d)
35-011 (a)
35-013 (a-d)
35-014 (a-b)
35-014 (e)
35-014 (g)
35-015 (a-b)
35-016 (a)
35-016 (c-d)
35-016 (i)
35-016 (k)
35-016 (m)
35-016 (o-q)

(54)

Technical Area 36

36-001
36-002
36-003 (a)
36-003(b)
36-003(c)
36-004 (d)
36-005
36-006
C-36-003

(9)

Technical Area 39

39-001 (a-b)
39-002 (a)
39-003
39-004 (a-e)
39-005
39-006 (a-b)
39-006(a)
39-007 (a)

Technical Area 39 Cont.

39-008

(14)

Technical Area 40

40-001 (a-c)
40-001 (b)
40-001 (c)
40-003 (a)
40-004
40-005
40-006 (a-c)
40-009
40-010

(11)

Technical Area 41

41-001
41-002 (a-c)

(4)

Technical Area 42

42-001 (a-c)
42-002 (b)
42-003

(5)

Technical Area 43

43-001 (a)
43-002

(2)

Technical Area 45

45-001
45-002
45-003
45-004

(4)

Technical Area 46

46-002
46-003 (a-h)
46-004 (a-h)
46-004 (b-h)

46-004 (a2-d2)
46-004 (m)
46-004 (p-z)
46-005
46-006 (a-d)
46-006 (f-g)
46-007
46-008 (a-g)

Technical Area 46 Cont.

46-008 (a)
46-008 (b)
46-008 (d-g)
46-009 (a-b)
46-010 (d)

(51)

Technical Area 48

48-002 (a-b)
48-003
48-004 (a-c)
48-005
48-007 (a-d)
48-007 (f)
48-010

(13)

Technical Area 49

49-001 (a-g)
49-003
49-004
49-005 (a)
49-006

(11)

Technical Area 50

50-001 (a)
50-002 (a-c)
50-004 (a-c)
50-006 (a)
50-006 (c-d)
50-009
50-011 (a)

(12)

Technical Area 52

52-001 (a-d)
52-002 (a-d)
52-002 (f)

(9)

Technical Area 53

53-001 (a-b)

53-002 (a-b)
53-005
53-006 (b-f)
53-007 (a-b)
53-007(a)

(12)

Technical Area 54

54-001 (a)
54-001 (c)
54-004 (excluding Shaft No. 9)
54-005
54-006
54-007 (a-c)
54-007 (a)
54-007 (c)
54-012 (b)
54-013 (a-b)
54-013 (b)
54-014 (b-d)
54-015 (h)
54-015 (k)
54-017
54-018
54-019
54-020

(20)

Technical Area 55

55-008
55-009

(2)

Technical Area 59

59-001

(1)

Technical Area 60

60-002
60-005 (a)
60-006 (a)
60-007 (a-b)

(5)

Technical Area 61

61-002
61-004(a)
61-005
61-006
61-007

(5)

Technical Area 63

63-001(a-b)

(2)

Technical Area 69

69-001

(1)

Technical Area 73

73-001 (a-d)
73-002
73-004 (a-d)
73-005
73-006

(11)

Total SWMUs in Table A = 891

TABLE C

**RFI Work Plan due
July 7, 1994:**

Technical Area 16

16-005 (a-f)
16-005 (h)
16-005 (j-m)
16-006 (g-i)
16-015 (a,b)
16-017
16-024(e)
16-025 (a)
16-025 (b-b2)
16-025 (c-c2)
16-025 (d-f)
16-025 (g-g2)
16-025 (h-z)
16-026 (i2)
16-026 (m-q)
16-026 (s)
16-026 (w)
16-028 (a)
16-029 (a2-h2)
16-029 (k-z)
16-031 (c-d)
16-031 (g)
16-032 (a)
16-032 (c-e)
16-034 (a-g)
16-034 (l-p)
C-16-025
C-16-026

Total SWMUs = 101

**RFI Work Plan due
July 7, 1995:**

Technical Area 16

16-016 (d-e)
16-016 (g)
16-025 (a2)
16-025 (d2)
16-025 (e2)
16-025 (f2)
16-025 (h2)
16-026 (a-a2)
16-026 (b2)
16-026 (c2)
16-026 (d2)
16-026 (e2)
16-026 (f-f2)
16-026 (g-g2)
16-026 (h-j)
16-026 (k-k2)
16-026 (l)
16-026 (r)
16-026 (t-u)
16-026 (x-z)
16-028 (b-e)
16-029 (h-j)
16-030 (a-c)
16-030 (e-f)
16-031 (a-b)
16-031 (e-f)
16-031 (h)
16-034 (h-k)

Total SWMUs = 51

**RFI Work Plan due
May 21, 1995:**

Operable Unit 1114

3-002(a)
3-002(d)
3-009(c)
3-009(i)
3-009(j)
3-011
3-019
3-021
3-025(a-b)
3-026(b-c)
3-029
3-031
3-032
3-034(a-b)
3-043(c)
3-045(a-c)
3-045(e-i)
3-046
3-049(a-e)
3-050(a)
3-050(d-g)
3-052(a)
3-052(c)
3-052(e-f)
3-054(a-e)
3-055(a)
3-055(c-d)
3-056(d)
3-056(l-n)
3-059

Total SWMUs = 54