HAZARDOUS WASTE TREATMENT FACILITY PERMIT

Permittee: Department of Energy
Sandia National Laboratory

Identification Number: NM5890110518
Permit Number: NM5890110518-2

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.), and the New Mexico Hazardous Waste Act, Sections 74-4-1 et seq. NMSA 1978), and regulations promulgated thereunder by the New Mexico Environmental Improvement Board (codified in the Hazardous Waste Management Regulations [20 NMAC 4.1), a permit is issued to the Department of Energy/Sandia National Laboratory (hereafter called the Permittee), to operate a hazardous waste treatment facility consisting of a Thermal Treatment Facility located southeast of Albuquerque, New Mexico, in Technical Area III, south of Building 6715, at latitude 35.8145 North and longitude 106.3230 West.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions herein (including those in any attachments) and the applicable regulations contained in the 20 NMAC 4.1 , as specified in the permit. Applicable regulations are those which are in effect on the date of issuance of the Permit, in accordance with 20 NMAC 4.1.

This Permit is based on the assumption that the information submitted in the Part B Permit Application and the Administrative Record is accurate and the activity will be conducted as specified in the Permit Application and the Administrative Record.

Any inaccuracies found in the submitted information may be grounds for the termination, revocation and reissuance, or modification of this Permit in accordance with 20 NMAC 4.1, Part IX, 40 CFR §270.41, §270.42, and §270.43 and for enforcement action. The Permittee must inform NMED of any deviation from or changes in the information in the Application which would affect the Permittee's ability to comply with the applicable regulations or Permit Conditions.

This Permit is effective as of 30 days after the date of signature of the Secretary and shall remain in effect for ten (10) years unless revoked and reissued under 20 NMAC 4.1, Part IX, 40 CFR §270.41, or, terminated under 20 NMAC 4.1, Part IX, 40 CFR §270.43 or §270.65, or continued in accordance with 20 NMAC 4.1, Part IX, 40 CFR §270.51(a) and/or §270.65.

Signed this 4th day of November, 1994

by Judith M. Espinosa
Judith M. Espinosa, Secretary
New Mexico Environment Department

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TABLE OF CONTENTS

MODULE I General Permit Conditions

Permit Condition	Subject	Regulation	Page
I.A	Effect of Permit	Part IX, §270.4 §270.30(g)	I-1
I.B	Permit Actions	Part IX, §270.4(a) §270.30	I-1
I.C	Severability		I-2
I.D	Definitions		I-2
I.E	Duties and Requirements	Part IX, §270	I-2
I.E.1	Duty to Comply	Part IX, §270.30(a)	I-2
I.E.2	Duty to Reapply	Part IX, §270.10(h) §270.30(b)	I-3
I.E.3	Permit Expiration	Part IX, §270.65	I-3
I.E.4	Need to Halt or Reduce Activity Not a Defense	Part IX, §270.30(c)	I-3
I.E.5	Duty to Mitigate	Part IX, §270.30(d)	I-3
I.E.6	Proper Operation and Maintenance	Part IX, §270.30(e)	I-3
I.E.7	Duty to Provide Information	Part V, §264.74(a) Part IX, §270.30(h)	I-4
I.E.8	Inspection and Entry	Part IX, §270.30(i	I-4
I.E.9	Monitoring and Records	Part V, §264.74(b) Part IX, §270.30(j)	I-5
I.E.10	Reporting Planned Changes	Part IX, §270.30(l)	I-6
I.E.11	Reporting Anticipated Noncompliance	Part IX, §270.30(l)	I-6

Permit Condition	Subject	Regulation	Page
I.E.12	Transfer of Permits	Part IX, §270.40	I-6
I.E.13	Twenty-Four Hour Reporting	Part IX, §270.30	I-7
I.E.14	Other Noncompliance	Part IX, §270.30	I-8
I.E.15	Other Information	Part IX, §270.30	I-8
I.F	Signatory Requirements	Part IX, §270	I-8
I.G	Reports, Notifications, and Submissions to the Secretary		I-9
I.H	Confidential Information	Part IX, §270.12	I-9
I.I	Documents to be Maintained at the Facility		I-9
MODULE II	**GENERAL FACILITY CONDITIONS**		
II.A	Design and Operation of Facility	Part V, §264.31	II-1
II.B	Required Notices	Part IX, §270.41-42	II-1
II.C	General Waste Analysis	Part V, §264.13	II-1
II.D	Security	Part V, §264.14	II-2
II.E	General Inspection Requirements	Part V, §264.15 §264.602	II-2
II.F	Personnel Training	Part V, §264.16	II-3
II.G	Special Provisions for Ignitable, reactive, or Incompatible Waste	Part V, §264.17	II-3
II.H	Preparedness and Prevention	Part V, §264.32-37	II-3
II.J	Contingency Plan	Part V, §264.53-55	II-4
II.K	Recordkeeping and Reporting	Part V, §264.73-75	II-5

Permit Condition	Subject	Regulation	Page
MODULE II	**GENERAL FACILITY CONDITIONS (continued)**		
II.L	General Closure Requirements	Part V, §264.111-115	II-5
II.M	General Post-closure Requirements	Part V, §264.118	II-6
MODULE III			
III.A	Thermal Treatment Facility Module Highlights		III-1
III.B	Permitted and Prohibited Waste	Part V, §264.601	III-1
III.C	Design and Operating Requirements	Part V, §264.601	III-2
III.D	Detection and Monitoring Requirements	Part V, §264.602	III-3
III.E	Requirements for Responses to Releases from the Unit	Part V, §264.601	III-3

PERMIT ATTACHMENTS

Permit Attachment	Attachment Subject	Page
1	Waste Analysis Plan	
1.0	Waste Analysis Plan	1-1
1.1	Facility Description	1-1
1.2	Containers	1-1
1.3	Identification of Waste to be Managed	1-3
1.3.1	Descriptions of Acceptable Waste Categories	1-3
1.3.2	Chemical and Physical Properties	1-4
1.3.3	Operations Generating Explosive Hazardous Waste	1-5
1.3.4	On-site Generated Waste	1-5
1.4	Boundary Conditions and Process Tolerance Limits	1-6
1.4.1	Boundary Conditions	1-6
1.4.2	Process Tolerance Limits	1-7
1.5	Parameters, Rational, and Test Methods	1-7
1.6	Waste Sampling Plan and Data Analysis	1-8
1.7	Waste Screening and Verification	1-8
1-8	Quality Assurance/Quality Control Program	1-11
2	Security Plan	
1.0	Security Plan	2-1
1.1	Security Procedures and Equipment	2-1
1.2	24-Hour Surveillance System	2-1
1.3	Barrier and Means to Control Entry	2-1
1.4	Barrier	2-1
1.5	Means to Control Entry	2-2
1.6	Warning Signs	2-2
1.7	Waiver	2-2
3	Inspection Schedule	
1.0	Inspection Schedule	3-1
1.1	General Inspection Requirements	3-1
1.1.1	Types of Problems	3-1
1.1.2	Frequency of Inspections	3-3
1.1.3	Remedial Action	3-3
1.2	Specific Process Inspection Requirements	3-3
1.3	Miscellaneous Unit Inspection	3-3
4	Personnel Training	
1.0	Personnel Training	4-1
1.1	Outline of the Training Program	4-1
1.1.1	Job Title/Job Description	4-2
1.1.2	Training Content, Frequency, and Techniques	4-3

Permit Attachment	Attachment Subject	Page
4	Personnel Training (continued)	
1.1.3	Training Director	4-3
1.1.4	Relevance of Training to Job Position	4-3
1.2	Implementation	4-3
4A	Hazardous Waste Management Job Descriptions	
	Project Leader	4A-1
	Facility Operator	4A-2
4B	Training Course Outline	4B-1
5	Procedures for Handling Ignitable, Reactive, or Incompatible Waste	
1.0	Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste	5-1
1.1	Engineering Precautions to Prevent Reactions	5-1
1.2	General Precautions for Handling Reactive Waste	5-1
1.3	Waste Management Operations	5-1
1.4	Waste Handling Equipment	5-2
1.5	Containers	5-2
1.6	Container Handling Procedures	5-3
6	Contingency Plan	
	List of Figures	2
1.0	Introduction	3
1.1	Distribution	3
1.2	Purpose	3
1.3	Facility Description	4
1.4	Thermal Treatment Facility	4
1.5	Wastes	5
2.0	Facility Emergency Coordinator	7
3.0	Response Procedures	8
3.1	Spills	10
3.2	Personnel Exposure	11
3.3	Power Failure	12
3.4	Unplanned Fire and/or Explosion	12
3.5	Natural Emergencies	13
3.6	Evacuation	13
4.0	Emergency Equipment	14
5.0	Emergency Recovery Procedures	16

Permit Attachment	Attachment Subject	Page
7 Closure Plan		
1.0	Closure Plans, Postclosure Plans, and Financial Requirements	7-1
1.1	Closure Plan	7-1
1.2	Closure Procedures	7-5
1.2.1	Sampling Procedures	7-6
1.2.2	Appropriate Sample Containers and Preservatives	7-9
1.2.3	Sample Handling and Documentation	7-9
1.2.4	Sample Shipping	7-11
1.2.5	Sample Analysis	7-11
1.2.6	Quality Assurance/Quality Control	7-12
1.3	Decontamination Verification	7-12
1.4	Closure of Miscellaneous Units	7-13
1.5	Notices Required for Treatment Facilities	7-13
8 Facility Description		
1.0	Facility Description	8-1
1.1	General Description	8-1
1.2	Topographic Map	8-1
1.3	Location Information	8-3
1.4	Traffic Patterns	8-6
Figure 1-1	Location of the Thermal Treatment Facility	
Figure 1-2	Facility Location Map	
Figure 1-3	Contour Map	
Figure 1-4	Detailed Site Plan	
Figure 1-5	Windrose	
Figure 1-6	Land Use Adjacent to Sandia National Laboratory	
Figure 1-7	Land Use within Sandia National Laboratory	
Figure 1-8	Geologic Features in the Vicinity of the Thermal Treatment Facility	
9 Waste Management		
1.0	Process Information	9-2
1.2	Container Handling Procedures	9-4
1.3	Waste Characterization	9-5
1.4	Treatment Effectiveness	9-5
1.5	Environmental Performance Standards for the Miscellaneous Unit	9-6
Figure 1	Thermal Treatment Facility Construction Design	
10 Part A Permit Application		11-1

New Mexico Environment Department

Reply to Public Comments Received

on the Sandia National Laboratory

Thermal Treatment Facility

Revised Draft Permit

Comment Period ran from May 17, 1994 to June 30, 1994

Attached are the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau's (HRMB) responses to public comments made in regard the Sandia National Laboratories (SNL) Thermal Treatment Facility (TTF) Revised Draft Permit.

Comments were received from:

Region 6 of the EPA in Dallas, Texas

Department of Energy (DOE) and Sandia National Laboratories (SNL) combined their comments in one submittal.

EPA Comments and Responses by NMED	Page 1 - 5
DOE/SNL Comments and Responses by NMED	Page 6 - 19

Changes made to the text of the Revised Draft Permit in formulating the Final Permit were made in response to public comments. Those changes will be identified as follows:

~~Deletions from the Revised Draft Permit will be stricken out and highlighted.~~

~~Additions to the Revised Draft Permit will be highlighted.~~

Changes made to the Revised Draft Permit in formulating the Final Permit that require the deletion of information added to the Draft Permit, in response to the November 15 to December 30, 1993 Public Comment Period will be indicated as follows:

~~Deletions will be double underlined strike outs and highlighted.~~

References in this document that state "originally changed" refer to changes made in the Draft Permit in response to public comments received during the public comment period on the Draft Permit. The public comment period on the Draft Permit ran from November 15, 1993 through December 30, 1993.

GENERAL COMMENT:

In response to the release of the Revised Draft Permit for public comment the U. S. Environmental Protection Agency, Region VI sent nine (9) comments on the Revised Draft Permit. The first eight (8) comments were identical to the comments made on the Draft Permit during the public comment period on the Draft Permit. Those first eight (8) comments are reiterated below for the convenience of the reader.

EPA Region Six added a comment number nine (9) to the comments on the Revised Draft Permit. This was the only change in the EPA's comments and is addressed in sequence.

EPA Region 6 Comment 1:

"The permit should clearly state the allowed burning times during each day, ie. 9 am through 5 pm, etc."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition C.6.a. in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated "shall not operate the Thermal Treatment Facility (burn) except between the hours of 9:00 am and 5:00 pm." DOE/SNL objected to this change as stated above. DOE/SNL has requested that the 9:00 am time be changed to 7:00 am. That change has been made. Please see attached page Module III-3 at 6.a. in the fourth shaded area on the page.

EPA Region 6 Comment 2:

"The permit should state what wind speeds burning will be permitted."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition C.6.b. of the Draft Permit in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated "shall not operate the Thermal Treatment Facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour."

DOE/SNL objected to the change as stated above saying that the "wind restriction is arbitrary with no apparent technical reason for the restriction.". NMED will make no further changes to this

permit condition during finalization of the Permit. For additional information and NMED's response to SNL see: SNL comment on Module III, Condition C.6.b. on Page _____ of this document.

EPA Region 6 Comment 3:

"The permit should address retreating or disposing of "kickout" and untreated fragments. If treated to the full potential, kickout or fragments shall be disposed of at an authorized waste management unit."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition C.3. in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated ""Kickout" or untreated fragments should be retreated. If kickout is fully treated particles shall be disposed of at an authorized Waste Management Unit." NMED will make no further changes to condition during the finalization of this permit. See the second shaded area on page Module III-3 at Condition C.3.

EPA Region 6 Comment 4:

"No burning shall be permitted if violent weather threatens within 10 miles of the facility."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition C.6.c. in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated "operate the Thermal Treatment Facility (burn) when threatening weather is within 10 miles of the TTF." DOE/SNL has objected to the above change as being "vague and unenforceable". NMED has changed the language of this permit condition to clarify the requirements and description of "Threatening/Violent Weather" by placing parameters with each meteorologic condition. See the sixth shaded area on page Module III-3 at Condition C.6.c.

EPA Region 6 Comment 5:

"The permit should state that only reactive material may be burned. Prohibited materials shall include radioactive nuclear waste and PCBs."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition B.1. on Page Module III-1 in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated, "Prohibited materials shall include radioactive nuclear wastes, PCBs and mixed waste." DOE/SNL has objected to the above change as being "unnecessary and beyond the state's regulatory authority contained in HWMR-7" and "not having any list of 'prohibited' wastes to be treated, but maintain the affirmative and specify what the unit can treat, based upon the Permittee's application package." NMED will make no further changes to the current language of this permit condition in the finalization of the Permit. Also see NMED's response to SNL comment on Module III, Condition B.1. which is on Page ____ of this document.

See the first shaded area on page Module III-1 at Condition B.1.

EPA Region 6 Comment 6:

"Language should be added to the permit that requires agency notification and approval (both EPA and NMED) prior to any significant unit changes."

NMED Response:

NMED originally changed the wording of the Draft Permit in Permit Module III, Condition C.2. in response to an identical EPA comment during the Public Comment Period on the Draft Permit by adding condition language which stated "The Permittee shall notify, as required by section I.E.10 of this permit, the Secretary and receive approval prior to making any significant changes". In response to the comment received from EPA on the Revised Draft Permit NMED again modified the language. The current change deleted "significant changes" and inserted "Class I, II, or III Modifications." See the first shaded area on page Module III-3 at Condition C.2.

EPA Region 6 Comment 7:

"Language concerning 100 year flood controls should be added to the permit."

HRMB Response:

No changes to the Revised Draft Permit will be made in formulating the permit. The topic is covered adequate in Permit Attachment 8 on Page 8-4 in section 1.3.2 Floodplain Standard.

EPA Region 6 Comment 8:

"The permit should specify the maximum amount of material that may be burned in any year."

NMED Response:

NMED has changed the language of Module III on Page III-2 by adding language to specify the maximum annual quantity of each waste code indicated in Attachment 1 (the Waste Analysis Plan). The annual quantities are calculated by multiplying the boundary condition for that waste code (given in Attachment 1) times the number of days in a year to determine the maximum amount that can be treated per annum. SNL objected to the change made to the Draft Permit in response to this comment. See NMED's response to SNL comment on Module III, Condition B.4.a through d. This response is found on Page ___ of this document.

EPA Region 6 Comment 9:

"The original OB/OD Unit, which operated until the mid-1980's, was never properly closed, and will need to be included in the Final Subpart-X Permit to be closed under the State's RCRA Closure Procedures."

NMED Response:

In response to this comment the NMED modifies Module II on Page II-4 Condition II.L.1 by addition of language which includes the "original OB/OD Unit" Thermal Treatment Facility in the closure requirements. Please see the shaded area in the above specified location which states a compliance schedule to be met by DOE/SNL.

The following comments jointly prepared by DOE/SNL were received on June 30, 1994 hand carried by SNL personnel, and on July 5, 1994 by U.S. Mail.

DOE's Comment 1:
Section III.B.1. Permitted and Prohibited Waste

"DOE's current comment: The NMED modification to permit in response to the EPA comment is unnecessary and beyond the state's regulatory authority contained in HWMR-7. The first sentence of the permit Section III.B adequately respond to the EPA comment by allowing only the treatment of the reactive wastes listed in the DOE/SNL/NM Part A and Part B Permit Applications, portions of which are attachments to the permit document itself."

NMED Response:

No changes have been made in response to this comment during the formulation of the Permit.

Changes made in the Draft Permit prohibiting the burning of Radioactive Nuclear Waste, PCBs and Mixed Waste were not intended to be all inclusive of prohibited waste to be treated by the TTF.

Under the provisions of 40 CFR § 264.601, the State of New Mexico has the regulatory authority to control PCBs. PCBs are a hazardous constituent listed in 40 CFR § 261 Appendix VIII. Therefore the prohibition of burning PCB contaminated explosives remains in effect.

The State of New Mexico obtained authority to regulate mixed waste on July 25, 1990. A prohibition against burning radioactive contaminated explosives at the Thermal Treatment Facility remains in effect for the following reason.

DOE/SNL personnel have indicated that the residues in the burn pan are classified as Hazardous waste and scraped out, placed in a container, and transported for disposal. This type of removing of residues from the burn pan does not constitute decontamination. Upon the introduction of a radioactive component the material in the pan, the contents then become a mixed waste. NMED has regulatory authority over mixed waste. SNL/DOE shall not burn radioactive nuclear waste contaminated explosives at the TTF.

SNL's Comment on II.C

"Change 'The Permittee shall verify the analysis of each waste stream annually as part of its quality assurance program, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary' to 'The permittee shall verify the characterization of each waste stream prior to being submitted for thermal treatment as part of its quality assurance program in accordance with Permit Attachment 1. If analytical methods are used, the analysis shall be conducted in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary'"

SNL's Recommendation:

"Replace the current Waste Analysis Plan with the enclosed one."

NMED Response:

The revised Waste Analysis Plan (WAP) submitted as part of DOE/SNL joint comments is unacceptable for the following reasons. No changes to the Waste Analysis Plan will be made in response to this comment.

During a meeting and tour of the TTF held in Albuquerque on March 25, 1994, SNL stated they would:

1. Submit a demonstration of the impracticality, and lack of analytical methods provided for in SW-846 for explosives. The demonstration as submitted is incomplete.

2. Submit a revised WAP addressing the laboratory analysis of residue (after treatment) to verify the Knowledge of Process (KOP) of the waste characterization. This was not provided in the Revised Waste Analysis Plan.

Review of the Revised WAP submitted for replacement of the WAP in the Revised Draft Permit shows changes made in an attempt to meet the requirements of laboratory analysis through the use of KOP for the characteristic of reactivity only. Therefore the Revised Waste Analysis Plan is lacking the basic verification Quality Assurance/Quality Control criteria discussed on March 25, 1994 for acceptance of SNL's claim of KOP.

Other specific reasons why the revised WAP is unacceptable are:

- Examples of documentation required from the generator is missing. NMED is uncertain of the type of information that will be received by TTF personnel and placed in the operating records.

- SNL's statement that "most SW-846 methods cannot be used on explosive samples." An explanation of "most SW-846 methods" is required when considering SNL's next statement.

- SNL's statement that "there is no analytical method in SW-846" that can be used on explosive samples. The discrepancy between "most" and "no"must be explained.

- Reference made to Figure 2-1. Figure 2-1 not submitted. Without Figure 2-1 NMED does not have documentary examples for the permit.

- Reference made to the following nonexistent sections in the Permit: 3.3.3., 3.3.2., 3.4., 2.3.1. and 2.7.

- Reference made to inner containers that do not match the description and demonstration of inner containers as given during meeting/tour of March 25, 1994. During the March 25, 1994 meeting SNL demonstrated the use of static guard bags as inner containers. The Revised WAP submitted with these comments refers to wood and cardboard inner containers.

SNL's Comment: I.A, II.L.4 and III.B.3

"SNL/DOE does not intend to and will not use the TTF as a disposal unit. Because all waste generated at the TTF after treatment is disposed of off-site, SNL/DOE did not apply for a disposal permit and did not address requirements of a disposal facility in the Part A and B Permit Application."

SNL's Recommendation:

"Delete all references to disposal of hazardous waste."

NMED Response:

NMED has modified the language of the sections in question by preceding the word "disposal" with the words "containerize for". For specific language changes please see:

I.A Line 1 and 2 in Module I on Page I - 1 the first shaded area.

I.A Line 3 and 4 in Module I on Page I - 1 the second shaded area.

II.L.4 Line 3 in Module II on Page II - 5 the second and third shaded areas.

III.B.3 Line 2 and 3 in Module III on Page III - 1 the third and fourth shaded areas.

SNL's Comment: I.I

"SNL agrees that all documents, amendments, revisions, and modifications shall be maintained by SNL. SNL also agrees that the current records shall be maintained at the Thermal Treatment Facility to ensure proper operation. However, SNL maintains that long-term storage of records should be managed in record centers/repositories within SNL/NM for the following reasons: 1) The TTF has limited storage space; 2) the volume of historical records is very large; and 3) records can be preserved and better meet other record retention requirements at a record center repository."

SNL's Recommendation:

"Change 'The Permittee shall maintain at the Thermal Treatment Facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents;' to 'The Permittee shall maintain at the facility the most current copy of the following documents and current amendments, revisions and modifications to these documents:....All superseded versions of the documents and previous amendments, revisions and modifications to these documents shall be maintained at the facility (SNL/NM) until closure is completed and certified by an independent, registered professional engineer,"

NMED Response:

NMED has modified the language to allow the "storage" of documents as described in 40 CFR at the indicated locations. In keeping with the use of the word "Facility" as described in Module I, Page Module I-2, Section D the records storage requirements for this permit are as indicated in numbers 1-6 below. Storage of documents previous to this permit application are to be maintained at the Facility's (SNL's) records center which shall maintain the operational records for the previous unit at this site.

1. Waste Analysis Plan shall be maintained at the Thermal Treatment Facility until closure. HWMR-7, Part V, 40 CFR § 264.13

2. Inspection schedules shall be maintained at The Thermal Treatment Facility as required by HWMR-7, Part V, 40 CFR § 264.15(b)(2)

3. Personnel training documents and records as required by HWMR -7, Part V, 40 CFR § 264.16 until closure of the Facility (SNL). Current employees and all past employees for a period of three (3) years past their last working day shall be maintained at the Thermal Treatment Facility.

4. Contingency Plan and all revisions shall be maintained at the Thermal Treatment Facility as required by HWMR-7,Part V, 40 CFR § 264.53(a) until the closure of the Thermal Treatment Facility is certified.

5. Operating records shall be maintained at the Thermal Treatment Facility as required by HWMR-7, Part V, 40 CFR § 264.73 until closure of the TTF is certified.

6. Closure Plan, as required by HWMR-7, Part V, 40 CFR § 264.112(a) until closure of the TTF is Certified.

SNL's Comment: III.B.1, III.B.3 and III.B.4

"Module III, Section B.1 and B.3 restricts SNL from treating waste that is not specifically listed in the Waste Analysis Plan (Attachment A). The waste Analysis Plan includes a list of typical explosives that may be treated; it is not a comprehensive list of explosive compounds. This restriction is inappropriate because the Part A and the EPA waste codes determine which wastes may be treated. Furthermore, the restriction is redundant because Section III.B.2 in the Permit imposes a restriction that SNL can only treat the wastes that meet the waste category and boundary conditions as described in the Waste Analysis Plan. The restriction in III.B.2 is sufficient to ensure safe and compliant operation of the TTF."

SNL's Recommendation:

"Change 'The Permittee may treat only those reactive wastes specified in Permit Attachment 1' to '...specified in current Part A."

"Change 'The Permittee shall apply for and receive a Permit Modification...hazardous waste not identified in Attachment 1.' to '...hazardous waste not identified in current Part A."

"Change 'If the increase in annual quantities listed in the revised Part A will be used to prepare a new Attachment 1, which will become part of this Permit' to 'If the increase in annual quantities is used to prepare a revised Part A, the current Part A will become part of this Permit."

NMED Response:

No changes have been made during the finalization of this Permit. NMED makes the following observations in regard to SNL's recommended change(s) based on Part A Waste Codes and Quantities:

1. The additional restrictions are based on:

   A. At SNL's statement that the categories and codes listed in Part A are not specific but representative.

B. Categories and codes listed in the Part A Application are not specific. These categories and codes do not preclude/prohibit burning/treatment of those categories/codes of waste if contaminated with radioactive material and/or PCBs.

2. When SNL failed to accurately complete the Permit Application Part A in regard to section XIV which state: "B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A* estimate the quantity of that waste that will be handled on an annual basis. *For each characteristic or toxic contaminant entered in column A* estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant." (emphasis added) SNL did not list annual quantities for each waste code as required.

3. To prevent any further confusion about the Part A Application that was used in the preparation of this Permit, NMED has included a copy of the June 14, 1993 Part A Application as Attachment 11 of this permit.

SNL's Comment: III.B.4.a and III.B.4.b

"The current Part A imposes the maximum annual quantity of waste and process capacity of the TTF. It is unnecessary to repeat the quantity restrictions in this section of the permit. However, if NMED chooses to list quantities in this section of the permit, the quantities listed should be based on the current Part A data 6/93, in which the estimated annual quantity of waste is 5000 kg of D003/D001/D011/F003/F005 and the process design capacity is 100 liters of T004 treatment."

SNL's Recommendation:

"Either change 'At present, the Thermal Treatment Facility is limited to the treatment of the following quantities.' to 'The Thermal Treatment Facility is limited to treatment of waste codes and quantities as described in the current Part A' and delete all of Sections III.B.4.a and III.B.4.b OR change '15 kg annually of explosive substances' to '5000 kg annually of explosive substances' and '2600 gallons annually of other reactive waste' to 26000 liters annually of reactive waste'."

NMED Response:

NMED used the size specifications on the certified engineer drawings to calculate the correct design capacity and compare that capacity to that specified in the Part B Application in finalizing the permit.

NMED's comparison of the design capacity specified by SNL in Part B of the Permit Application, the capacity of the certified engineering drawings, and the design capacity given by SNL on the Part A Application are not consistent; the engineered capacity is 20.8 gallons (78.9 liters) according to the certified engineering drawings.

The Part B Application submitted by SNL gives a capacity of 2 gallons in the TTF burn pan, in Attachment 5 and Attachment 9, that SNL has requested be changed to 20 gallons.

The Part A Application submitted by SNL states 100 liters (26.5 gallons) as a design capacity for the burn pan.

Further NMED will not substitute the 26,000 liters (6,868 gallons) for 2,600 gallons as requested by SNL. This would be an increase in quantity of over 2.6 fold. Likewise NMED will not substitute the 5,000 kilograms for 15 kilograms which would be an increase of 333 fold.

Due to the inconsistencies between the quantities listed in the Part A Application, the Part B Application, and the engineering drawings NMED will not make the requested changes. However, clarification of Condition III.B.4 by NMED during the initial calculation of the quantities listed in III.B.4.a and III.B.4.b will be made as follows:

1. The amount stated by NMED in III.B.4.a as 15 kg was in error. The correct amount will read "10.4 kg (22.9 pounds) maximum net weight of high explosive substances (D003) DOT hazard class 1.1."

2. NMED neglected to address the annual quantity for propellants and pyrotechnics substances. In keeping with the order of substances set by SNL in the Part B Application (now Attachment 1 of this permit), NMED has changed the information in section III.B.4.b. The correct quantity of propellants and pyrotechnics will read "164.25 kilograms (365 pounds) maximum net weight of propellant and pyrotechnics substances (D003) except DOT hazard class 1.1."

3. The amount stated by NMED in III.B.4.b as 2,600 gallons was in error. The correct amount should be 2,763 liters (730 gallons) and is now stated in a new section III.B.4.c as "2,763 liters (730 gallons) of explosive contaminated liquids (D001, F003, F005)"

4. The addition of section III.B.4.d which states "3,285 kilograms (7,300 pounds) maximum net weight of explosive contaminated substances (D001, D003, D011, F003 and F005) combined as long as the individual 'Boundary Condition' quantities specified in a., b. and c. above are not violated."

5. SNL requested that NMED make changes according to the design capacity stated in the Part A Application as "100 liters/day of T004 treatment." NMED will not make any changes based on this design capacity because the actual design capacity is 78.9 liters based on certified engineer drawings is approximately 21% less than stated in the Part A Application.

6. SNL requests changes in the annual quantities based upon the numbers (5000 kg) in the Part A Application. When NMED calculated the maximum combined net weight based upon Attachment 1 Boundary Conditions/Process Tolerance Limits a figure of 3,285 kg was arrived at. SNL's figure of 5000 kg is more than 50% above Boundary Condition/ Process Tolerance Limits used to create this permit. NMED will not allow SNL to exceed those Boundary Conditions/Process Tolerance Limits without notification of the Secretary.

SNL is expected to submit a revised Part A Application with corrected design capacity and Estimated Annual Quantities for each waste code within 10 days of the receipt of this correspondence. The Revised Part A shall consist of EPA Form 8700-23 (01-90) and does not need to include facility drawings and photographs.

SNL's Comment: III.C.1

"The current Attachment 8 contains extraneous background information such as description of local geology, traffic patterns of KAFB, wind roses of SNL, and a land use map for KAFB; it does not include 'drawings [of the TTF]'."

SNL's Recommendation:

"Replace the text in Attachment 8 with the enclosed certified drawing of the TTF."

NMED Response:

NMED has made no further changes to the final Permit language. The information identified by SNL as "extraneous" is required by regulation as follows:

1. Description of Local Geology is required by 40 CFR § 264.601(a)(2)

2. Traffic Patterns are required by 40 CFR § 270.14(b)(10)

3. Wind roses are required by 40 CFR § 270.14(C)(19)

4. Land use map is required by 40 CFR § 264.601(a)(6)

NMED does have drawings (photo copies) of the TTF in Attachment 8 in Figure 1 and Figure 1-4. The drawings submitted with SNL's comments will be also incorporated in Attachment 8.

SNL's Comment: III.C.6 and Attachment 10

"Permit Attachment 10 is the 1993 Open Burn Air Quality Permit issued annually by the City of Albuquerque Air Pollution Control Division. It is not a RCRA form, report, or permit and it is not issued or enforced by NMED. SNL/DOE is willing to provide NMED a current copy of the permit each year, but objects to a City of Albuquerque's air quality permit becoming part of NMED's RCRA permit. As an attachment, it will cause confusion over who has authority of enforcement and it would require SNL/DOE to receive a RCRA permit modification every year when the air permit is renewed. This is an excessive administration burden for all parties: NMED, SNL, DOE, and the public because of the resource, time, and money demands of RCRA permit modifications. This change would not decrease SNL's operating requirements of the TTF."

SNL's Recommendation:

"Replace 'The Permittee shall operate and maintain the TTF...in accordance with Permit Attachment 9 and 10' with '...in accordance with Permit Attachment 9.' Delete Attachment 10."

"As a courtesy, the 1994 Open Burn Air Quality Permit is enclosed."

NMED Response:

No changes will be made to the final permit.

When SNL made application for this permit the Albuquerque Air Pollution Control Open Burn Permit was submitted as a part of the Part B Application and was made attachment 10 in the Draft Permit. NMED considers the information presented in the open burn permit from the City of Albuquerque pertinent to the formulation of this permit. Also toe incorporation of the Albuquerque Open Burn Permit is evidence that SNL is complying with 40 CFR § 270.3(f).

With regard to SNL's comment on excessive administrative burden due to Permit Modification, NMED submits the following: During a meeting and tour of the TTF on March 25, 1994 NMED informed SNL that if SNL would submit a list of informational/form changes to be submitted once per year, NMED would consider the list and make appropriate changes in the language of the permit allowing for (the approved items on the list) updates without formal modification proceedings. SNL neglected to include this list of items in their Revised Draft Permit Comments. Therefore SNL's concern about the excessive administration cannot be addressed in these comments.

SNL's Comment: III.C.6.a

"This change corresponds to the working hours of TTF personnel."

SNL's Recommendation:

"Change the allowable burning times from 9:00am-5:00pm to 7:00am-5:00pm."

NMED Response:

NMED has changed the times accordingly. See the forth shaded area on Page III-3 of Module III.

SNL's Comment: III.C.6.b and III.C.6.c

"This wind restriction is arbitrary with no apparent technical reason for the restriction. The weather restriction is vague and unenforceable. Pursuant to the air quality permit, SNL is

required to consult the Albuquerque Air Board prior to all burns, which considers wind, air quality, and weather conditions."

SNL's Recommendation:

"Delete 'operate the TTF (burn) when the wind speed is less than 5 mph or greater than 15 mph' and 'operate the TTF (burn) when threatening weather is within 10 miles of the TTF."

NMED Response:

NMED has made no changes in the final permit to III.C.6.b. The 5 to 15 mph wind speed restriction that has been made is standard in OB/OD permits issued by NMED and EPA. The 5 mph minimum wind speed is to ensure dispersal of-off gases and vapors without benefit of a stack to aid in the lifting of those off-gases or vapors.

Wind speed restrictions are recommended by the U.S. Army Environmental Hygiene Agency for OB/OD units.

Under the provisions of 40 CFR § 264.601(c) NMED has the authority to require a minimum wind speed due to the absence of 40 CFR 264.602 monitoring that SNL states the technology does not exist for at this facility. See Module III Page Module III-3 at Condition C.6.b. in the fifth shaded area on the page.

Clarification of the term "Threatening Weather" has been made in condition III.C.6.c during the finalization of this Permit. Clarification is made by the inclusion of "Threatening weather is defined as winds in excess of 35 miles per hour, tornados, electrical storms with or without precipitation of any type, rain that exceeds 3/10 ths of an inch per hour, snow storms with a visibility less than 3/8 ths of a mile, hail storms with hail of any size, any sleet and/or ice storms."

SNL's Comment: Attachment 4 and Attachment 4B

"At NMED's request, on 3/22/94 SNL/DOE submitted corrected pages for Attachments 4 and 4B for inclusion into the official permit, but they are not included in this version of the permit. Therefore, we are resubmitting the corrected pages with this comment package."

SNL's Recommendation:

"Replace current Attachments with the enclosed Attachment 4 and 4B."

NMED Response:

NMED received the submittal of 3/22/94. Examination of the submittal indicated that 1) it was not in the same format as the permit and 2) that the section numbering was not correct. In an attempt to make the submittal fit the Permit it was retyped in the Permit format with correct section numbering. During the retyping approximately seven (7) lines were omitted and four (4) other words were not changed as indicated. These changes have now been made and are indicated in the shaded areas of Page 4-3 of Attachment 4.

The changes have been made to the format and numbering in Attachment 4B and they are also included as a new Attachment 4B.

SNL's Comment: I.E.a.13.ii

This change will be consistent with the definition of 'facility' and will avoid confusion with SNL's Hazardous Waste Management Facility."

SNL's Recommendation:

"Change 'hazardous waste management facility' to 'facility."

NMED Response:

NMED did not change in the final Permit "Hazardous Waste Management Facility" to "Facility". However NMED will change "Hazardous Waste Management Facility" to "Thermal Treatment Facility" in Condition I.E.a.13.ii..

SNL's Comment: I.E.14

DOE/SNL did not make a comment on this condition but did make the following recommendation for the correction of what DOE/SNL considered a typographical error.

SNL's Recommendation:

"Change '...Conditions I.E.10-15' to '...Conditions I.E.10-13."

NMED Response:

NMED has changed the citation in I.E.14 to read I.E.1.-15. SNL must comply with each and every section as referred to in I.E.14

SNL's Comment: Attachment 5 Pg 5-3, 2nd para of Section 1.6

SNL did not make any comment on this section just recommended a correction of a typographical error.

SNL's Recommendation:

"Change 'The TTF consists of a square steel burn pan with a capacity of approximately 2 gallons (7.5 liters)' to '...approximately 20 gallons (75 liters)."

NMED Response:

NMED made the following changes in the final Permit to Attachment 5 and Attachment 9 in regard to the size of the burn pan.

In reference to this requested change NMED will state the correct size of the burn pan as 20.8 gallons (78.9 liters) as indicated by the certified engineer drawings.

NMED has also made changes in the dimensions given by SNL in Attachment 9 on Page 3 in reference to the size of the burn pan the size of the steel lined concrete pad, and the elevation of the berm above the surrounding ground level. These changes reflect the sizes indicated on the certified engineering drawings. See Attachment 9, Page 9-3, Section 1.1.3. Lines 1,2, 12 and 19.

MODULE I

GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and/or containerize for disposal ~~dispose of on-site~~ hazardous waste in accordance with the conditions of this Permit. Any treatment and/or containerization for disposal ~~dispose~~ of hazardous waste not authorized in this Permit is prohibited. Subject to Hazardous Waste Management Regulation (HWMR-7) Part IX, 40 CFR §270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Act), (Sections 74-4-1 et. seq. NMSA 1979, as amended, 1989). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Act, or any other law providing for protection of public health or the environment. [HWMR-7, Part IX, 40 CFR §270.4 and §270.30(g)]

B. PERMIT ACTIONS

1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-7, Part IX, 40 CFR §270.41, §270.42, and §270.43. The filing of a request for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit condition. [HWMR-7, Part IX, 40 CFR §270.4(a) and §270.30(f)]

2. Permit Renewal

This Permit may be renewed as specified in HWMR-7, Part IX, 40 CFR §270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [HWMR-7, Part IX, 40 CFR §270.30(b)]

C. SEVERABILITY

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

D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in HWMR-7, Parts I, V, VII, VIII, and IX, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"facility" as used in this permit shall refer to the Thermal Treatment Facility unless otherwise specified by being followed by "(SNL/NM)".

"immediate" means acting or being without the intervention of another object, cause, or agency: Made or done at once.

"Secretary" means the Secretary of New Mexico Environment Department, or his/her designee or authorized representative.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of the Permit and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [HWMR-7, Part IX, 40 CFR §270.30(a)]

2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. [HWMR-7, Part IX, 40 CFR §270.10(h) and §270.30(b)]

7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. [HWMR-7, Part IX, 40 CFR §264.74(a) and §270.30(h)]

a. SNL will submit to the Secretary a Revised Part A Application that has been properly completed. This will include the correct design capacity and an estimated annual quantity for each waste code entered in Column A. This submittal shall be made within 10 days of the receipt of the NMED response to Public Comments on the Revised Draft Permit. The revised Part A Application will be received, reviewed and made a part of this permit before the permit becomes effective.

8. Inspection and Entry

Pursuant to HWMR-7, Part IX, 40 CFR §270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location. The permittee will be provided with the opportunity to request or obtain split or duplicate samples for Quality Assurance or Quality Control purposes.

9. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of HWMR-7, Part II, 40 CFR Part §261 or an equivalent method approved by the Secretary. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in the Waste Analysis Plan (See Permit Attachment 1). [HWMR-7, Part IX, 40 CFR §270.30(j)(1)]

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by HWMR-7, Part V, 40 CFR §264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells installed to detect releases from the TTF and associated ground-water surface elevations for the active life of the facility. [HWMR-7, Part V, 40 CFR §264.74(b) and §270.30(j)(2)]

c. Pursuant to HWMR-7, Part IX, 40 CFR §270.30(j)(3), records of monitoring information shall specify:

i. The dates, exact place, and times of sampling or measurements;

ii. The individuals who performed the sampling or measurements;

iii. The dates analyses were performed;

iv. The individuals who performed the analyses;

v. The analytical techniques or methods used; and

vi. The results of such analyses.

10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the Permitted facility. ~~Any significant changes~~ Class I, Class II, or Class III Modifications require the Secretary's approval prior to implementation. [HWMR-7, Part IX, 40 CFR §270.30(l)(1)]

11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [HWMR-7, Part IX, 40 CFR §270.30(l)(2)]

12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-7, Part IX, 40 CFR §270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-7, Part V, 40 CFR §264 and Part IX, 40 CFR §270 and this Permit. [HWMR-7, Part IX, 40 CFR §270.30(l)(3) and §264.12(c)]

13. Twenty-Four Hour Reporting

a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the ~~hazardous waste management facility~~ ~~Thermal Treatment Facility~~ which could threaten the environment or human health outside the facility.

b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility (SNL/NM);

iii. Date, time, and type of incident;

iv. Name and quantity of materials involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Secretary may waive the five-day written notice requirement in favor of a written report within 15 days. [HWMR-7, Part IX, 40 CFR §270.30(k)(1)]

14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.~~10~~ 1. - 15., at the time monitoring reports are submitted. The reports shall

contain the information listed in Permit Condition I.E. ~~14~~ 13.b [HWMR-7, Part IX, 40 CFR §270.30(l)(10)]

15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information. [HWMR-7, Part IX, 40 CFR §270.30(l)(11)]

F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his/her designee, or authorized representative, shall be signed and certified in accordance with HWMR-7, Part IX, 40 CFR §270.11 and §270.30(k).

G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Secretary should be sent by certified mail or given to:

Program Manager, RCRA Permit Section
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
P.O.Box 26110
Santa Fe, NM 87502

Telephone Number (505) 827-4308
FAX Number (505) 827-4389

H. CONFIDENTIAL INFORMATION

In accordance with HWMR-7, Part IX, 40 CFR §270.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the ~~Facility~~ Thermal Treatment Facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

1. Waste Analysis Plan, as required by HWMR-7, Part V, 40 CFR §264.13 and this Permit.

II.D. SECURITY

The Permittee shall comply with the security provisions of HWMR-7, Part V, 40 CFR 264.14(b)(2) and (c) and Permit Attachment 2. In order to prevent unknowing entry, and minimize the possibility for the unauthorized entry of persons or livestock which may enter the active portion of any hazardous waste unit, the evaporative tank unit and the waste fuel treatment unit will maintain ~~seven foot high,~~ between a seven foot and eight foot high, surrounding chain link fences that will remain locked at all times unless they are being accessed for inspection, maintenance, sampling, treatment, or hazardous waste transfers.

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Permit Attachment 3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by HWMR-7, Part V, 40 CFR 264.15(c) and 40 CFR 264.602. Records of inspection shall be kept, as required by HWMR-7, Part V, 40 CFR 264.15(d).

II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as described in Permit Attachment 4, as required by HWMR-7, Part V, 40 CFR 264.16. Job descriptions for the Thermal Treatment Facility Personnel are found in Permit Attachment 4A. The training program shall include the instructional elements found in Permit Attachment 4B. The Permittee shall maintain training documents and records, as required by HWMR-7, Part V, 40 CFR 264.16(d) and (e).

II.G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment 5.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment ~~6A~~ 6, as required by HWMR-7, Part V, 40 CFR 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-7, Part V, 40 CFR 264.33.

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by HWMR-7, Part V, 40 CFR 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by HWMR-7, Part V, 40 CFR 264.35.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by HWMR-7, Part V, 40 CFR 264.37 and found in Attachment ~~6A~~ 6. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the most current Contingency Plan, Permit Attachment 6, whenever there is a fire, explosion, ~~or~~ release of hazardous waste or constituents outside the treatment unit which could threaten human health or the environment outside the Thermal Treatment Facility. As required by HWMR-7, Part V, and 40 CFR 264.51.

II.J.2. Copies of Plan

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.53.

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-7, Part V, 40 CFR 264.54. In the event of an emergency this immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval. Non emergency amendments shall be required (in writing) within fifteen (15) days of the change for NMED review and final approval.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-7, Part V, 40 CFR 264.55.

II.K. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

II.K.1. Biennial Report

The Permittee shall comply with the biennial reporting requirements of HWMR-7, Part V, 40 CFR 264.75.

II.L. GENERAL CLOSURE REQUIREMENTS

II.L.1. Performance Standard

The Permittee shall close the current facility, as well as the previous facility (built in 1969 and reconstructed in 1986) which was located at the same site, required by HWMR-7, Part V, 40 CFR 264.111 and in accordance with the Closure Plan, Permit Attachment 7. A specific closure plan is required for each unit. The closure Plan for the Original Thermal Treatment Unit Shal be submitted to the Secretary for approval within 60 days of the effective date of this permit.

II.L.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with HWMR-7, Part V, 40 CFR 264.112(c), whenever necessary.

II.L.3. Notification of Closure

The Permittee shall notify the ~~Regional Administrator~~ Secretary in writing at least 45 days prior to the date on which he expects to begin final closure of any of the following: or final closure of the facility, as required by HWMR-7, Part V, 40 CFR 264.112(d).

II.L.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or containerize for disposal ~~dispose~~ of on site all hazardous waste and shall complete closure activities, in accordance with HWMR-7 Part V, 40 CFR 264.113 and the schedules specified in the Closure Plan, Permit Attachment 7.

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by HWMR-7, Part V, 40 CFR 264.114 and the Closure Plan, Permit Attachment 7.

II.L.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-7, Part V, 40 CFR 264.115.

II.M. GENERAL POST-CLOSURE REQUIREMENTS

II.M.1. Post-Closure Care Period

The Permittee will remove or decontaminate the hazardous waste at the unit. Should inadequate removal or decontamination of the site occur, the Permittee will submit a Post-Closure Care Plan to the Secretary within 90 days from the date that the owner or Secretary determines that the hazardous waste management unit must be closed as a landfill. HWMR-7, Part V, 40 CFR 264.118(a).

a. ~~15 kilograms annually of explosive substances (quantity taken from Part A of the Permit Application.~~ 10.4 kilograms (22.9 pounds) maximum net weight of high explosive substances (D003) DOT hazard class 1.1. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 28.4 grams per burn event times 365 days per year equals 10.5 kilograms. The "Boundary Condition for high explosives is located in Attachment 1, Section 1.4.1.III and incorporated into this permit by Module III, Condition B.2.

b. ~~2,600 gallons annually of other reactive waste. This quantity is calculated by multiplying the Process Design Capacity as listed in Part A of the Permit Application as 10 gallons generated per day by 260 working days a year.~~ 164.25 kilograms (365 pounds) maximum net explosive weight of propellant and pyrotechnics substances (D003)except DOT hazard class 1.1. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 450 grams per burn event times 365 days per year equals 164.25 kilograms. The "Boundary Condition for propellants is located in Attachment 1, Section 1.4.1.IV and incorporated into this permit by Module III, Condition B.2.

c. 2,763 liters (730 gallons) of explosive contaminated liquids (D001, F003, F005). This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 7.57 liters per burn event times 365 days per year equals 2,763 liters. The "Boundary Condition" for explosive contaminated liquids is located in Attachment 1, Section 1.4.1.V and incorporated into this permit by Module III, Condition B.2.

d. 3,285 kilograms (7,300 pounds) maximum net weight of explosive contaminated substances (D001, D003, D011, F003 and F005) combined as long as the individual "Boundary Condition" quantities specified in a., b. and c. above are not exceeded. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. Nine (9) kilograms per burn event times 365 days per year equals 3,285 kilograms. The "Boundary Condition for explosive contaminated substances is located in

Attachment 1, Section 1.4.1.IV and incorporated into this permit by Module III, Condition B.2.

5. The Permittee is allowed to treat only hazardous wastes generated at the facility (SNL/NM). The Permittee is not allowed to receive hazardous waste from off-site for treatment at the Thermal Treatment Facility.

C. Design and Operating Requirements

1. The Permittee shall maintain the designed and constructed Thermal Treatment Facility according to the drawings contained in Permit Attachment 8 and the Operational Description contained in Permit Attachment 9.

2. The Permittee shall notify, as required by section I.E.10 of this permit, the Secretary and receive approval prior to making any ~~significant unit changes~~ Class I, Class II, or Class III Modifications.

3. The Permittee shall operate and maintain the Thermal Treatment Facility in accordance with the operating procedures contained in Permit Attachment 9. "Kickout" or untreated fragments ~~should~~ shall be retreated. If kickout is fully treated particles shall be disposed of at an authorized Waste Management Unit.

4. The Permittee Shall operate and maintain a precipitation cover in accordance with the specifications in and operating practices contained in Permit Attachment 9.

5. The Permittee shall manage accumulated precipitation in accordance with Permit Attachment 9.

6. The Permittee shall operate and maintain the Thermal Treatment Facility in order to minimize air emissions or exposure of people (on-site or off-site) to toxic or hazardous emissions in accordance with Permit Attachment 9 and 10. Additionally the Permittee shall not:

a. operate the Thermal Treatment Facility (burn) except between the hours of ~~9:00~~ 7:00 am and 5:00 pm.

b. operate the Thermal Treatment Facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour.

c. operate the Thermal Treatment Facility (burn) when threatening weather is within 10 miles of the TTF. Threatening weather is defined as winds in excess of 35 mph, tornados, electrical storms with or without precipitation of any type, snow storms with a visibility of less than 3/8 ths of a mile, rain with accumulations greater than 3/10 ths of accumulation per hour, any hail, sleet and/or ice storms.

7. Ash/residues from the Thermal Treatment Facility shall be managed in accordance with Permit Attachment 9.

D. Detection and Monitoring Requirements

The Thermal Treatment Facility shall be monitored in accordance with the procedures found in Attachment 9.

E. Requirements for Responses to Releases from the Unit

The Permittee shall respond to releases to ground water, surface water, air, and soil as specified in Permit Attachment ~~9~~ 6.

1.0 Personnel Training

This chapter describes the personnel training program for the TTF in accordance with NMHWMR-7, Pt. V, §264.16, and NMHWMR-7, Pt. IX, §270.14.

The primary objective of the TTF training program is to prepare personnel to operate the TTF in a safe and environmentally sound manner. To achieve this objective, the program provides all employees with training relevant to their positions. Every TTF employee completes initial training within 6 months of employment or assignment to the TTF. TTF personnel are given, at a minimum, a basic understanding of the regulatory requirements in hazardous waste management and emergency procedures. TTF employees receive additional classroom and on-the-job training designed specifically to teach them how to perform their duties safely and in conformance with regulatory requirements. TTF personnel receive the required training before being allowed to work unsupervised.

This chapter describes the introductory and continuing training provided to personnel at the TTF (i.e., Project Leader and TTF Operator) whose actions or failure to act could result in a spill or release or the immediate threat of a spill or release of hazardous waste. These personnel are directly involved with hazardous waste management at the TTF. Their training allows them to operate the facility safely and in compliance with hazardous waste management regulations.

1.1 Outline of the Training Program

Employee training at the TTF is the overall responsibility of TTF Project Leader. All training is conducted by qualified instructors certified by the Environmental, Safety and Health (ES&H) Training Department. Training includes formal classroom sessions, on-the-job training, and review of written procedures and plans. A summary of the training of TTF personnel is shown in Table 4-1. Training Course Outlines for the TTF are found in Attachment 4B. TTF personnel are trained in the following areas:

- Occupational Safety and Health Administration employee rights
- RCRA hazardous waste management facility requirements

- TTF operating procedures, emergency response, and permitted facility requirements

Training records for all facility personnel are kept at the Department 7057 Environmental Programs Record Center. Training records include descriptions, dates, and attendees of each training session.

Table 4-1

Summary of Training for Thermal Treatment Facility Personnel

Title	Length	Frequency	Personnel
Explosives Personnel Safety Course	16 to 24 hours	Initial	Thermal Treatment Facility Operators
Emergency Procedures and Contingency Plan	Variable*	Annual	All
Operating Procedures of the Thermal Treatment Facility	Variable*	Annual	All
Resource Conservation and Recovery Act Training	8 to 24 hours	Initial	Project Leader

* Length of annual trainings total a minimum of eight hours.

✓ A minimum of 24 hours of training of new facility personnel is
✓ conducted within six months after the date of employment or
✓ assignment to the TTF and until the training is completed, the
✓ new personnel work only under the supervision by fully trained

personnel. All facility personnel participate annually in a review of training that totals a minimum of eight hours. Visitors, temporary personnel, and contractors are trained commensurate with the nature of their visit or duties.

1.1.1 Title/Job Description

Table 7-1 provides a list of job titles and training requirements for those positions at the TTF that involve hazardous waste management. Job descriptions are provided in Attachment 4A. In accordance with NMHWMR-7, Pt. V, §264.16(d)(2), the job descriptions include hazardous and waste management job duties, required skills, qualifications, and experience, as well as educational requirements.

A file of all hazardous waste management job titles and job descriptions and a list of employees for each job title are maintained at SNL/NM by the Department ~~7057~~ 7500 Environmental ~~Programs~~ Operations Record Center.

1.1.2 Training Content, Frequency, and Techniques

The TTF training program includes a comprehensive combination of ~~internal~~ classroom training courses and on-the-job training. Each training ~~course~~ session is carefully developed to ensure relevancy of the course objectives and to ensure its support of the goal of safe and environmentally sound operations at the TTF. The training content will include, at a minimum, the topics shown in appendix 4D. Course outlines are maintained by the ES&H Training Department. ~~Generalized course outlines are included as Appendix E.~~

1.1.3 Training Director

The Training Director directs the training program and is responsible for establishing training requirements for TTF personnel. The Training Director is required to be knowledgeable of the applicable hazardous waste regulations and specific process employed at the TTF. The Training Director is the TTF Project Leader.

1.1.4 Relevance of Training to Job Position

The TTF training program provides employees with training relevant to their positions as shown in Table 7-1. The Project

Leader receives hazardous waste management training relevant to his position. TTF personnel receive training in hazardous waste management, TTF operations, and explosive handling.

1.2 Implementation of Training Program

The TTF training program has been implemented to ensure that all hazardous waste management personnel employed at the TTF receive the training indicated in Table 7-1 or equivalent course work. All personnel are trained on the RCRA Contingency Plan through their basic training. All recently hired employees and new hires receive the indicated training within six months of their date of hire or their transfer to a new position. Personnel do not work in unsupervised positions until they successfully complete the indicated training requirements. All hazardous waste management personnel attend annual refresher courses that review the initial training received.

Records relating to the TTF training program for hazardous waste management and emergency response personnel are maintained by the Department 7057 Environmental Programs Record Center located at SNL/NM. These records include the job titles and job descriptions for all hazardous waste management positions; a roster of employees in those positions; a list of courses required for each position; course descriptions; documentation that each employee has received and completed appropriate training; and all of the backup information regarding certification, qualification, and examination. Training records of current personnel are kept until closure of the TTF. Records of former employees are kept for at least three years from the date the employee last worked at the facility.

The training plan and training records for the previous year are maintained at the TTF.

EXPLOSIVES PERSONNEL SAFETY COURSE OUTLINE

Section	Course Topic(s)
1	Introduction Definitions Type of Explosives Chemistry of Explosives
2	Use of Explosives Low Explosives (Propellants)
3	Pyrotechnics and Controlled Burning Rate Detonation Phenomena
4	Types of Tests
5	Igniters and Initiators
6	Linear Products Slapper and Flying-Plate Detonators Conical-Shaped Charges
7	Technical Summary and Components
8	Safe Operating Procedures Transportation of Explosives
9	Protective Equipment and Clothing Experiment Assembly
10	Explosives Cleanup Test Area Fire Suppression
11	Testing
12	Laboratory Demonstrations

EMERGENCY PROCEDURES AND CONTINGENCY PLAN

Section	Course Topic(s)
1	Standard Safety Guidelines Site Entry Site Control Personal Protective Equipment
2	Emergency Procedures SNL/NM Emergency Preparedness Plan and Procedures Sector Plan
3	Contingency Plan Implementation Procedures for Using Emergency Equipment Procedures for Shutdown of Operations Response(s) to Emergencies Emergency Coordinator(s) Evacuation Route and Procedures Postemergency Procedures

~~OPERATING PROCEDURES OF THE THERMAL TREATMENT FACILITY~~

~~Section~~	~~Course Topics~~
~~1~~	~~General Overview of Procedures to Perform Operations at the Thermal Treatment Facility~~
~~2~~	~~Waste Analysis Plan~~ ~~Identification of Waste to be Managed~~ ~~Waste Screening and Verification~~ ~~Facility Operation~~
~~3~~	~~Safety Practices~~ ~~Security~~ ~~Facility Inspections~~ ~~Preventive Procedures, Structures, and Equipment~~ ~~Prevention of Reaction of Reactive Waste~~

RESOURCE CONSERVATION AND RECOVERY ACT TRAINING

Section	Course Topic(s)
1	Hazardous Waste Management and Regulations - Overview
2	Hazardous Substances and Properties
3	General Facility Standards
4	Preparedness and Prevention
5	Contingency Plan and Emergency Procedures
6	Recordkeeping and Reporting

THERMAL TREATMENT FACILITY TRAINING OUTLINE

Topics to be covered will include, at a minimum, the following:

Emergency Procedures and the TTF Contingency Plan

Contingency Plan Implementation
Personal Protective Equipment
Procedures for Using Emergency Equipment
Procedures for Shutdown of Operations
Response(s) to Emergencies
Emergency Coordinator(s)
Evacuation Route and Procedures
Postemergency Procedures

Operating Procedures of the TTF

Overview of Written Operating Procedures
Overview of Waste Analysis Plan
Safety Practices
Security, Site Entry, and Site Control
Facility Operations
Facility Equipment and Structures
Procedure to Prevent the Reaction of Reactive Waste
Permit Requirements for the TTF

RCRA Training

Overview of Hazardous Waste Management Regulations Applicable to the TTF

1.5 Containers

The containers used to hold explosive hazardous waste qualify as "containers" in accordance with NMHWMR-7, Pt. I, § 260.10: that is, they are "portable devises in which a material is stored, transported, disposed of, or otherwise handled." Solid materials to be treated at the TTF are contained in discrete inner packages. Several small, inner packages may be transported to the TTF within approved outer containers. To ensure that waste is not spilled on the concrete pad, the integrity of the inner waste containers is not compromised at the TTF. Liquid waste containers are not opened until they are on the steel-lined concrete burn pad and the contents are to be poured into the burn pan.

1.6 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately ~~2 gallons (7.5 liters)~~ 20.8 gallons (78.9 liters). The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is ~~2 gallons (7.5 liters)~~ 20.8 gallons (78.9 liters). Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

1.1.3 Facility Location, Design, and Construction

The TTF consists of a square burn pan, 29-1/4 inches (~~74~~ 74.3 centimeters) on each side and ~~5-1/2~~ 5-5/8 inches (~~14~~ 14.3 centimeters) deep, constructed of 3/8 inch (1 centimeter) steel. A remotely operated metal lid can be raised to open, or lowered to cover the burn pan. The burn pan is enclosed by grated metal (i.e., open to the air) cage, approximately 4 feet (1.2 meters) on each side and 8 feet (2.4 meters) tall. The roof is nearly solid metal with slots for tracks and cable (figure 1-4). Access to the burn pan is provided through a steel mesh door on the north side of the burn cage which is remotely operated from inside Building 6715. The burn cage sits in the center of a steel lined concrete pad 12 feet 8 inches (~~3.8~~ 3.86 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any water (from precipitation) which collects inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594-liter) catch tank. The steel lined concrete pad is surrounded on the west, south, and east sides by an earthen berm, approximately 8 feet (~~2.4~~ 2.44 meters) tall. An 8-foot (2.4 2.44 meter) high chain link security fence surrounds the entire TTF. Three gates, located on the north side of the fence, provided access to the TTF.

Releases from the TTF that may be harmful to human health or the environment (i.e., ground water, surface water, or air) are precluded by the location, design, and construction (Figure 1) of the miscellaneous unit. Section 1.5 of this permit application provides information on compliance with the NMHWMR-7, Pt. V, §§264.601 and 264.602.

1.1.3.1 Site Security

The security requirements contained in NMHWMR-7, Part V, §264.14, and NMHWMR-7, Pt. IX, §270.14(b)(4), require that security be provided by 24-hour surveillance <u>or</u> if that requirement cannot be met, a barrier and means to control entry be provided. The TTF has 24-hour security surveillance and means to control entry. In addition, warning signs are provided. The TTF meets the security requirements. These security requirements are described in detail in Permit Attachment 2.

1.1.3.2 Waste Handling Equipment

A peristaltic pump is used to transfer waste liquid contaminated with SASN from Building 6715 into the TTF burn pan and is the only waste handling equipment used at the TTF. Outer containers used to transport reactive explosive waste are hand carried to the TTF. The inner packages are manually removed from the outer containers by trained explosives handlers and then manually

placed or poured in the TTF burn pan. The waste is not handled after placement in the burn pan or before treatment. TTF treatment operations (i.e., waste ignition) are remotely performed from the control console in Building 6715. After treatment is complete, the ash in the burn pan is manually unloaded (using palstic scoops), placed in containers, and transported to the HWMF by trained hazardous waste handlers.

1.2 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters)~~. The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters)~~. Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

placed or poured in the TTF burn pan. The waste is not handled after placement in the burn pan or before treatment. TTF treatment operations (i.e., waste ignition) are remotely performed from the control console in Building 6715. After treatment is complete, the ash in the burn pan is manually unloaded (using palstic scoops), placed in containers, and transported to the HWMF by trained hazardous waste handlers.

1.2 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters).~~ The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters)~~. Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

New Mexico Environment Department

Reply to Public Comments Received

on the

Sandia National Laboratory

Thermal Treatment Facility

Draft Permit

Comment Period Ran from November 15, 1993 to December 30, 1993

List of Commentors

Sandia National Laboratory/ Department of Energy	Pages 1 - 17
United State Department of the Interior Bureau of Fisheries and Wildlife	Page 17
New Mexico Environment Department's Department of Energy Oversight Committee	Page 17
United State Environmental Protection Agency	Pages 18 - 20
Comment Changes Made in the Draft Permit	Module I Pages 1-9
	Module II Pages 2-4, 5
	Module III Pages 1-3

Changes made in the Draft Permit due to public comment are indicated as follows: the new verbiage will be shaded and ~~deleted verbiage will be lined out~~. This will assist the reader in rapid identification of the changes that were made.

Reply to Comments by SNL/NM and DOE

General Comments:

"Sandia National Laboratories/New Mexico (SNL/NM) requests that the New Mexico Environment Department (NMED) delete those permit conditions within the draft permit that are not applicable to the operation of the Thermal Treatment Facility (TTF). DOE and SNL/NM understands that much of the draft permit language is 'boilerplate.' However, if the permit condition is not applicable to the facility to be permitted, the language tends to create confusion as to permit requirements and how those requirements may be met."

HRMB Response:

Because SNL/NM did not make a specific request for language change the Hazardous and Radioactive Materials Bureau (HRMB) of the NMED sees no reason to change the "boilerplate" language of the permit conditions.

Section by Section Comments:

I.A. Effect of Permit
Regulation: None

"The Thermal Treatment Facility is a hazardous waste treatment facility consisting of a Subpart X treatment unit. Waste treatment in the unit is limited to small quantities of explosive waste (D003) potentially contaminated with hazardous waste (i.e., F005, F003, D001, and/or D011). Treatment results in the decomposition of the explosive waste. Principal decomposition products are ash (carbon) and gases (nitrogen, water vapor, carbon dioxide, carbon monoxide, sulfur dioxide, diatomic oxygen, and traces of nitrous oxide). The residue is removed from the burn unit and disposed of off-site at a hazardous waste disposal facility."

"Proposed resolution: The TTF is not intended to nor will it be used as a disposal unit. Therefore, SNL/NM requests that 'and/or dispose on site' be deleted from line 1 and 'and/or disposal' be deleted from line 3 of this Permit Condition."

HRMB Response:

The HRMB will change the verbiage of this Permit Condition by deleting the words "on site" only. Containers as found in 40 CFR 260 refers to "any portable devise in which a material is stored, transported, treated, disposed of or otherwise handled" SNL/NM states in Attachment 1 on page 9 "The ash residue will be containerized and managed through the HWMF for ultimate disposal." While the HRMB recognizes that the final act of disposal does not take place at the TTF the burn pan residue is placed in containers at the TTF for transport to the final disposal site. See changes made to Module I - 1, A. Effect of Permit, Lines 1 and 3.

I.D Definitions
Regulation: HWMR-7, Parts I, V, VIII, and IX

"the term facility is defined in 40 CFR 260.10 and incorporated by reference in this permit pursuant to HWMR-7 as follows: 'All contiguous land, and structures on the land ...used for the treating, storing, or disposing of hazardous waste. A facility may consist of several TSD operation 'units.' The use of this term is not consistent throughout the permit, such that it is not clear when 'facility' refers to the Thermal Treatment Facility (TTF) or lands under Sandia Corporation control at SNL/NM."

"Proposed resolution: SNL/NM proposes that the following definition of 'facility' be added to permit condition I.D.: 'For purposes of this permit the term facility refers to the TTF except in the following usages when the term is interpreted to mean land under the control of Sandia Corporation at SNL/NM:

Permit Condition I.13.b.ii
Permit Condition I.I
Permit Condition II.J.1 (as proposed - See SNL/NM on Permit Condition II.J.1)
Permit Condition III.B.5."

HRMB Response:

The HRMB agrees to add the following definition of "facility" as requested. "Facility" as used in this permit shall refer to the Thermal Treatment Facility unless otherwise specified by being followed by "(SNL/NM)".(Page Module I - 2, D. Paragraph 2.) "(SNL/NM)" was added after the word facility " in:

Permit Condition I.13.b.ii New verbiage found in, Module I - 7, b.ii. line 2.

I.D. Definitions
HRMB Response (continued)

Permit Condition II.J.1 New verbiage found in, Module II - 3, II.J.1. Line 7.

Permit Condition III.B.5. New verbiage found in, Module III - 2, B.5. Line 2.

For Permit Condition I.I the verbiage has been changed to identify the Thermal Treatment Facility and not the parent Sandia Corporation. Reasoning: Records should be maintained at the TTF control center and not some other location at SNL/NM. Please see the new verbiage in Module I - 8, I. Documents to be Maintained at the Facility Line 1.

I.E.8.d Samples:
Regulation: HWMR-7, Part IX, 40 CFR 270.30(i)

"In accordance with the language of the New Mexico Hazardous Waste Act, Section 74-4-4.3 et. seq. NMSA 1979, as amended 1989, SNL/NM requests the following be added to the Permit Condition: "The Permittee will be provided with the opportunity to obtain split or duplicate samples."

HRMB Response:

HRMB will change the verbiage to reflect the recommended verbiage by SNL/NM. The HRMB sees no problem with allowing the Permittee to obtain duplicate samples or splitting samples for the purposes of Quality Assurance/Quality Control (QA/QC). Therefore the HRMB will add the proposed clause with the following change: "request or obtain split or duplicate samples for Quality Assurance or Quality Control purposes." Please see the new verbiage in Module I - 4, 8.d. Samples, Lines 4 through 7.

I.E.9.b Monitoring Records
Regulation: HWMR-7, Part IX, 40 CFR 270.30 (j)(1)

"The Permittee is required to maintain records from all ground water monitoring wells and associated ground water surface elevations for the active life of the facility. SNL/NM maintains an extensive network of ground water monitoring wells. However, none of those wells is located so as to detect releases to the ground water from the TTF; nor is there a requirement for SNL/NM to monitor the ground water at the TTF. Furthermore, Section 1.5.1 of Permit Attachment 9 demonstrates that operations at the

I.E.9.b Monitoring Records
SNL/NM Comments (continued)

TTF will not result in release of hazardous materials to the ground water"

"Proposed resolution: SNL/NM requests that the requirement be deleted from the permit or that the language be added to the permit condition to stipulate that only ground water monitoring wells installed to detect releases from the TTF will be subject to the permit condition."

HRMB Response:

HRMB will not delete the requirement from the permit but will change the verbiage by addition of "installed to detect releases from the TTF". This will reflect the recommended change by SNL/NM. Please see the new verbiage in Module I - 5, b. Monitoring Records, Lines 17 and 18.

I.E.14 Other Noncompliance

"The last sentence of the permit condition should be revised to read 'Permit Condition I.E.13.b' instead of I.E.14."

HRMB Response:

The HRMB will make the change to reflect the verbiage recommended by SNL/NM. Please see Module I -7, 14 Other Noncompliance, Line 6.

I.I Documents to be Maintained at the Facility
Regulation: HWMR-7, Part V, 40 CFR 264.13, 264.15(b)(2), 264.16(d), 264.53(a), 264.73, and 264.112(a)

"The permittee is required to maintain, at the facility until closure is completed and certified...the waste analysis plan, inspection schedules, personnel training records and documents, the contingency plan, an operating record, and the closure plan. This Permit Condition is more stringent that RCRA regulatory requirements in HWMR-7, Part V."

"Proposed resolution: SNL/NM requests that the Permit Condition be revised to be consistent with HWMR-7, Part V, recordkeeping requirements. A proposed revision is:"

I.I Documents to be Maintained at the Facility
SNL/NM Comments (continued)

"The Permittee shall maintain the following documents and all amendments, revisions, and modifications to these documents:

The Waste Analysis Plan, as required by HWMR-7, Part V, 40 CFR 264.13 and this Permit.

Inspection Schedules for at least three years from the date of inspection, as required by HWMR-7, Part V 40 CFR 264.15(b)(2) and this permit.

Personnel Training Documents and records for current employees until closure and the former employees until at least three years from the date the employee last worked at the TTF, as required by HWMR-7, Part V, 40 CFR 264.16(d) and this permit.

Contingency Plan, as required by HWMR-7, Part V, 40 CFR 264.53(a) and this permit.

Operating Record until closure, as required by HWMR-7, Part V, 40 CFR 264.73 and this Permit.

The most current, approved copies of each applicable document will be maintained at the TTF.

SNL/NM requests that the requirement to maintain the Closure Plan be deleted. This is not a requirement in the HWMR-7, Part V, 40 CFR 264.112(a). SNL/NM will submit a written notification to request a permit modification, if necessary, to amend the closure plan as required by HWMR-7, Part V, 40 CFR 264.112(c)."

HRMB Response:

The HRMB disagrees and will make no changes. The Draft Permit's wording is not more stringent than RCRA Regulatory Requirements in HWMR-7, Part V. HWMR-7, Part V refers us to the adoption of 40 CFR 264 which in turn dictates each of the requirements stated in this Permit Condition. Regarding maintenance of the Closure Plan, 40 CFR 264.112(c)(2)(i) states: "The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever: (i) Changes in the operating plans or facility design affect the closure plan, or" and 40 CFR 264(c)(3) as applied through 40 CFR 270.14(b)(13). "The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to

I.I Documents to be Maintained at the Facility
HRMB Response (continued)

the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. ...In accordance with Section 270.32 of this chapter, the approved closure plan will become a condition of any RCRA Permit issued."

II.C General Waste Analysis
Regulation: HWMR-7, Part V, 40 CFR 264.13

"The Permittee is required to verify the analysis of each waste stream in accordance with SW-846 or equivalent methods. As demonstrated in section 1.3 of Permit Attachment 1, hazardous waste codes for the waste streams treated at the TTF are known as a result of knowledge of process (KOP). Due to the research and development oriented nature of the activities generating the waste streams to be treated at the TTF, waste volumes are generally small, waste streams vary over time, and processes are very well-defined, controlled, and documented. This enables SNL/NM to characterize waste streams on the basis of KOP and the raw materials used. Sampling and subsequent laboratory analyses would present unnecessary hazards to personnel; therefore, KOP and written documentation provided by the generators are appropriate methods to determine waste characteristics prior to treatment at the TTF."

"Proposed resolution: SNL/NM requests that the first sentence of paragraph 2 of this permit condition be revised to read 'The Permittee shall verify the analysis of each waste stream prior to treatment as part of its quality assurance program using knowledge of process in accordance with the Waste Analysis Plan (Permit Attachment 1) or, if necessary, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary."

HRMB Response:

HRMB disagrees and makes no changes. Under the provisions of 40 CFR 264.13(a)(1) before treatment an owner or operator "must obtain a detailed chemical and physical analysis of a representative sample of the wastes." 40 CFR 264.13(a)(2) states "the analysis may include data developed under 40 CFR 261... or documented data on the hazardous waste or on hazardous waste generated from similar processes." While 40 CFR 264.13(b) states "the owner operator must develop and follow a written waste

II.C. General Waste Analysis
HRMB Response (continued)

analysis plan which he will carry out to comply with paragraph (a) of this section. Paragraph (b) goes on to specify required information in the written waste analysis plan.

The regulations at 264.13(b)(2) clearly states that"data developed under part 261 and existing published or documented data on the hazardous waste or hazardous waste generated from similar processes" may be included in the analysis but does not indicate "Knowledge of Process" may be substituted for actual chemical and physical analysis.

II.D Security
Regulation: HWMR-7, Part V, 40 CFR 264.14(b)(2) and (c)

"The Permittee is required to maintain a seven foot high, surrounding chain link fence at the TTF. This level of detail is not contained in HWMR-7, Part V, 40 CFR 264.14."

"Proposed resolution: SNL/NM requests that the permit condition be deleted or that after the word 'maintain' in line 6, the sentence be revised to read 'a surrounding chain link fence, approximately seven feet high."

HRMB Response:

HRMB will not delete the permit condition, but will change the verbiage to read "maintain between a seven foot and eight foot..." Reasoning: In the permit attachments the HRMB found references to the fence being seven feet, seven and one half feet, and eight feet tall. Please see Module II - 2, II.D. Security, Line 7.

II.F Personnel Training
Regulation: HWMR-7, Part V, 40 CFR 264.16

"The training program outlines provided to the NMED in the permit application and included in the draft permit as Appendix 4B are examples of the outlines used to train TTF Personnel. The training program covers all of the areas described in the outlines but not necessarily in the order listed or in one course as is implied in this permit condition. As stated in section 7.0 of the permit application, all TTF employees are provided with adequate and appropriate training within six months of employment at the TTF. That is, the employees are provided with the information described in the outlines."

II.F Personnel Training
SNL/NM Comment (continued)

"Note that Appendix 4A to Permit Attachment 4 is not referenced in the Permit."

"Proposed resolution: SNL/NM requests that the permit condition be reworded to state that 'The Permittee shall conduct personnel training as described in Permit Attachment 4, as required by HWMR-7, Part V, 40 CFR 264.16. This training program shall include the elements in the attached outline, Appendix 4B.' (See related comment 4.B."

HRMB Response:

The HRMB has reworded the permit condition and refers SNL/NM to the new verbiage that has been rewritten to include the reference to Attachment 4, 4A, and 4B as requested. Even though SNL/NM refered to Appendix 4A in their comment the correct title on the document is Attachment 4A. Please refer to the new verbiage in Module II - 2, II.F.

II.H.5 Arrangements with Local Authorities
Regulation: HWMR-7, Part V, 40 CFR 264.37

"Permit Attachment 6A is referenced. However, the permit does not include a Permit Attachment 6A. Change the reference to 6."

HRMB Response:

The HRMB will make the change to reflect the recommended verbiage by SNL/NM. Please see the new verbiage in Module II - 3, II.H.5. Line 3.

II.J.1 Implementation of the Plan
Regulation: HWMR-7, Part V, 40 CFR 264.51

"a. A regulatory citation is not provided in this Permit Condition.

Proposed resolution: SNL/NM requests that the appropriate regulatory citation be included in this Permit Condition.

b. Every treatment event at the TTF will result in fire and an explosion due to the nature of the treatment operation (i.e., propane used as fuel to ignite explosive wastes). Therefore, it is not reasonable to implement the Contingency Plan 'whenever there is a fire, explosion...' Also, because SNL/NM is not a static facility, the Contingency Plan for the

II.J.1 Implementation of the Plan
SNL/NM Comment (continued)

> TTF may require revision to maintain compliance with RCRA regulations and to reflect current SNL/NM emergency response protocols. Therefore, the Contingency Plan included in the permit as Permit Attachment 6 may be outdated in the event of some future emergency."

"Proposed resolution: SNL/NM requests that the Permit Condition be revised to state that 'The Permittee shall immediately carry out the provisions of the most current Contingency Plan (which shall supersede the plan included as Permit Attachment 6) whenever there is a fire, explosion, or release of hazardous waste or constituents outside the treatment unit which could threaten human health or the environment outside the facility, as required by HWMR-7, Part V, 40 CFR 264.51."

HRMB Response:

HRMB will change the verbiage by addition of "most current" before the Contingency Plan in line 2 as recommended by SNL/NM. Additionally in response to SNL/NM recommendation HRMB will add "outside the treatment unit which could threaten human health or the environment outside the Thermal Treatment Facility" after the word "constituents". Please refer to the new verbiage found in Module II - 3, II.J.1, Lines 2, 6 and 7.

II.J.3 Amendments to the Plan
Regulation: HWMR-7, Part V, 40 CFR 264.55

"The Permittee is instructed to 'immediately amend, if necessary, the Contingency Plan.' There is no definition for 'immediately' in HWMR-7, Part 1, 40 CFR 260.10."

"Proposed resolution: SNL/NM requests that the term 'immediately' be defined or the phrase 'immediately amend' be deleted."

HRMB Response:

The HRMB refers SNL/NM to Module I, Section D, Definitions. "For purposes of this permit, terms used herein shall have the same meaning as those in HWMR-7, Parts I, V, VII, VIII, and IX, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by the standard dictionary reference or the generally accepted scientific or industrial meaning of the term."

II.J.3 Amendments to the Plan
HRMB Response (continued)

The HRMB therefore must refer SNL/NM to the standard dictionary (Webster's Collegiate) which states: "immediate: acting or being without the intervention of another object, cause, or agency: Made or done at once." See Module I - 2, D., Paragraph 3. Additionally the HRMB will add to the Permit the following. "This immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval." Please Module II - 4, II.J.3. Lines 3 through 8.

II.K.1 Operating Record
Regulation: HWMR-7, Part V, 40 CFR 264.73

"The Permittee is instructed to maintain a written operating record. This requirement is included in the Permit as Permit Condition I.I."

"Proposed resolution: SNL/NM requests that this requirement be deleted from the permit to eliminate redundancy."

HRMB Response:

The HRMB did delete II.K.1. Please see the new verbiage in Page Module II - 4, In that the original II.K.1 has been deleted and the current II.K.2 has been renumbered accordingly.

II.L.2 Amendment to Closure Plan
Regulation: HWMR-7, Part V, 40 CFR 264.112(c)

"The permittee is instructed to amend the Closure Plan...'whenever necessary.' This language is not consistent with that in HWMR-7, Part V, 40 CFR 264.112(a) which describes the conditions under which the Closure Plan must be amended."

"Proposed resolution: SNL/NM requests that the phrase 'whenever necessary' be deleted from this Permit Condition."

II.L.2 Amendment to Closure Plan (continued)
HRMB Response:

The HRMB disagrees with this request because as SNL/NM has pointed out numerous times "SNL/NM is not a static facility". Therefore the 'whenever necessary' will remain.

II.L.3 Notification of Closure
Regulation: HWMR-7, Part V, 40 CFR 264.112(d)

"'Regional Administrator' should be changed to 'Secretary'."

HRMB Response:

HRMB will make the change to reflect the recommended verbiage by SNL/NM. See the new Verbiage in Module II - 5, II.L.3, Lines 1 and 2.

III.B.2 Permitted and Prohibited Waste
Regulation: None

"In the last line of this Permit Condition, the word 'according' should be changed to 'accordance'."

HRMB Response:

HRMB will make the change to reflect the recommended verbiage by SNL/NM. Please see Module III - 1, B.2, Line 7.

III.C.1 Design and Operating Requirements
Regulation: None

"Permit attachment 8 does not contain 'descriptions and drawings' of the TTF. The information in this attachment (such as geological background, floodplain information, etc.) is not relevant to the operation of the TTF."

"Proposed resolution: The current Permit Attachment 8 should be omitted from the Permit and the current Permit Attachment 9 should be renumbered as the new Permit Attachment 8. Consequently, all references to current Permit Attachment 9 and 10 in this draft permit would need to be renumbered."

III.C.1 Design and Operating Requirements (continued)
HRMB Response:

HRMB disagrees. 40 CFR 264.600 and 40 CFR 264.601 dictates the information required to be addressed in a Subpart X permit. The TTF falls under a Subpart X Miscellaneous Units and therefore must contain the information found in current Attachment 8. Attachment 8 will not be deleted and the succeeding Attachments renumbered.

III.C.3 Design and Operating Requirements
Regulation: None

"Permit Attachment 8 does not discuss operating and maintenance of a precipitation cover at the TTF."

"Proposed resolution: See the comment on Permit Condition III.C.1."

HRMB Response:

No change was made because Permit Attachment 8 contains drawings of the TTF. Please see the new verbiage found in Module III - 2, C.1.

III.C.5 Design and Operating Requirements
Regulation: None

"The Permittee is instructed to operate and maintain the TTF in order to minimize air emissions or exposure of people to toxic or hazardous emissions in accordance with the current Permit Attachments 9 and 10. Permit Attachment 10 is the City of Albuquerque Open Burn Permit. This permit is applied for and reissued annually. Consequently, the terms and conditions of that permit change."

"See comment on Permit Condition III.C.1."

III.C.5 Design and Operation Requirements
SNL/NM Comment (continued)

"Proposed resolution: SNL/NM requests that this Permit Condition be revised to read 'in accordance with Permit Attachment 8 and the most recent open burn permit issued by the City of Albuquerque. A copy of the current open burn permit is attached."

HRMB Response:

No change was made. Since the HRMB is not deleting the original Permit Attachment 8 the references to Attachments 9 and 10 are correct. See Permit Condition III.C.5 found in Module III - 2, as C.6., Lines 4 and 5.

III.E Requirements for Responses to Releases from the Unit Regulation: None

"The permittee is instructed to respond to releases as specified in Permit Attachment 9, Section 1.5. This reference is not appropriate for responses to hazardous material releases. SNL/NM requests that "Permit Attachment 9, Section 1.5 be changed to the Contingency Plan, Permit Attachment 6."

HRMB Response:

HRMB will make the change to reflect the recommendation by SNL/NM. Please see the changes made in Module III - 3, E., Line 2.

Permit Attachment 1 Waste Analysis Plan for the TTF

" On page 1-11, Section 1.7, line 4, it is stated that' Documentation will include a completed Excess Explosives Worksheet...' SNL/NM is not a static facility. Forms are updated continually. Information contained on revised forms is equivalent to or more extensive than that contained on obsolete forms. For example, the Excess Explosive Worksheet has been revised since submittal of the Permit Application."

Permit Attachment 1 Waste Analysis Plan for the TTF
SNL/NM Comment (continued)

"Proposed resolution: Revise line 4, Section 1.7, Page 1-11 to read 'Documentation will include a completed Excess Explosive Worksheet (sample shown on Figure 2-2) or current and equivalent form, and may include a Material Safety Data Sheet and/or description of the process generating the waste."

HRMB Response:

No change was made. While the HRMB appreciates the problems of record keeping at a "non static" facility the regulations are explicit in that each administrative form change is considered a Permit Modification. 40 CFR 270.42 Appendix 1. topic A.1., B.3.,B.6.d.

Permit Attachment 4 Personnel Training for the Thermal Treatment Facility

"SNL/NM is concerned that the format of the course outlines in Appendix 4B has led to some confusion regarding the presentation of required training to TTF employees. The outlines presented in Appendix 4B contain lists of elements included in the TTF training program. However, there are not necessarily separate courses as is implied in Permit Condition II.F. To clarify the structure and content of the TTF training program, SNL/NM requests the following revision to Section 1.1.2 of Permit Attachment 4 (underlining is used to show suggested revisions): The TTF training program includes a comprehensive combination of <u>classroom</u> and on-the-job training. Each training <u>session</u> is carefully developed to ensure relevancy of the course objectives and to ensure its support of the goal of safe and environmentally sound operations at the TTF. <u>The training content will include at a minimum the topics shown in</u> Appendix 4B.

Appendix 4B Training Course Outlines

"See the Comment on Permit Attachment 4."

"Proposed resolution: SNL/NM requests the following revisions to the course outlines in Appendix 4B:

a. On Page 4B-1, include the statement at the top of the page that states 'Topics to be covered include, at a minimum, the following:' Also, delete the column headed 'section' and delete 'Introduction' in the course topic(s) column.

Permit Attachment 4 Personnel Training (continued)
SNL/NM Comment (continued)

b. Delete pages 4B-2 through 4B-4 and replace with the following:

THERMAL TREATMENT FACILITY TRAINING OUTLINE

Topics to be covered will include, at a minimum the following:

Emergency Procedures and the TTF Contingency Plan

Contingency Plan Implementation
Personal Protective Equipment
Procedures for Using Emergency Equipment
Procedures for Shutdown of Operations
Response(s) to Emergencies
Emergency Coordinator(s)
Evacuation Route and Procedures
Post-emergency Procedures

Appendix 4B Training Course Outlines (continued)

Operating Procedures for the TTF

Overview of Written Operating Procedures
Overview of Waste Analysis Plan
Safety Practices
Security, Site Entry, and Site Control
Facility Operations
Facility Equipment and Structures
Procedure to Prevent the Reaction of Reactive Waste
Permit Requirements of the TTF

RCRA Training

Overview of Hazardous Waste Management Regulations Applicable to the TTF.

HRMB Response:

The HRMB has no objection to the changes proposed and asks SNL/NM to submit the corrected pages for Attachments 4, 4A, and 4B for inclusion into the official permit prior to final approval.

Permit Attachment 6 Contingency Plan for the Thermal Treatment Facility

"The Facility Emergency Coordinators listed in Section 2.0, page 8-19, should be revised to delete the identified 'First Alternate.'

HRMB Response:

HRMB disagrees and will not make the deletion for the following reasons. By making this deletion the HRMB understands that under the provisions of 40 CFR 264.52(d), the TTF is only going to have one qualified emergency coordinator. Under the provisions of 40 CFR 264.55 the emergency coordinator's duties are specified. In 40 CFR 264.56, by regulation the Emergency Coordinator must be accessible and able to reach the facility within a short period of time 24 hours a day 365 days a year. In the event the listed emergency coordinator wants to leave town or go on vacation SNL/NM could then have to submit a Permit Modification, under the provisions of 40 CFR 264.55(d), to list the temporary emergency coordinator in the primary coordinator's absence.

OTHER COMMENTS RECEIVED

Bureau of Fisheries and Wildlife:
"We have no objection to issuance of the requested permit."

HRMB Response:
No changes needed.

DOE Oversight Office in Albuquerque:

The commenter initially had some problems matching the numbers presented by SNL/NM in the air quality model submitted. After re-running the model the commentor also decided that the TTF did not violate the 30 day standard for silver particle emission.

HRMB Response:
No changes needed.

The following comments were received from the United States Environmental Protection Agency.

EPA Comment No. 1:

"The permit should clearly state the allowed burning times during each day, ie. 9 am to 5 pm, etc."

HRMB Response:

HRMB has changed the Permit Condition in response to this comment by adding: "operate the facility (burn) except between the hours of 9:00 am and 5:00 pm.". See the change in Module III - 2, C.6.a.

EPA Comment No. 2:

"The permit should state at what wind speeds burning will be permitted."

HRMB Response:

HRMB has changed the Permit Condition in response to this comment by adding: "operate the facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour.". See the change in Module III -2, C.6.b.

EPA Comment No. 3:

"The permit should address retreating or disposing of "kickout" and untreated fragments. If treated to the full potential, kickout or fragments shall be disposed of at an authorized waste management unit."

HRMB Response:

HRMB has changed the Permit Condition in response to this comment by adding: "Kickout" or untreated fragments should be retreated. If kickout is fully treated, particles shall be disposed of at an authorized Waste Management Unit.". See the change in Module III - 2, C.3 Lines 3 through 6.

EPA Comment No. 4:

"No burning should be permitted if violent weather threatens within 10 miles of the facility."

EPA Comment No. 4 (continued
HRMB Response:

HRMB has changed the Permit Condition in response to this comment by adding: "operate the facility (burn) when threatening weather is within 10 miles of the facility.". See the change in Module III - 2, C.6.c.

EPA Comment No. 5

"The permit should state that only reactive material may be burned. Prohibited materials shall include radioactive nuclear waste, PCBs, and mixed waste."

HRMB Response:

HRMB has changed the Permit Condition by adding: "Prohibited materials shall include radioactive nuclear waste, PCBs, and mixed waste.". See the change in Module III - 1, B.1. Lines 2, 3 and 4.

EPA Comment No. 6:

"Language should be added to the permit that requires agency notification and approval (both EPA and NMED) prior to any significant unit changes."

HRMB Response:

HRMB has changed the Permit Condition by adding: "Any significant changes require the Secretary's approval prior to implementation. (HWMR-7, Part IX, 40 CFR 270.30(1)(1)) Please refer to the verbiage change in Module I - 6, I.E.10. HRMB has also included a response to this comment by adding: "The permittee shall notify, as required by section I.E.10 of this Permit, the Secretary and receive approval prior to making any significant unit changes." See Module III - 2, C.2.

EPA Comment No. 7:

"Language concerning 100 year flood controls should be added to the permit."

EPA Comment No. 7 (continued
HRMB Response:

No language change was made by HRMB. Module II requires that Flood Plain and Flood Control information be included in an attachment provided by the permittee. SNL/NM sufficiently addresses the subject in Permit Attachment 8.

EPA Comment No. 8:

"The permit should specify the maximum amount of material that may be burned in any year."

HRMB Response:

HRMB has changed the Permit Condition by adding the following at the indicated places.

"At present the Thermal Treatment Facility is limited to the treatment of the following quantities." Refer to the change in Module III - 1, B.4, Lines 11 and 12. and

"15 kilograms annually of explosive substances. (quantity taken from Part A of the Permit Application) Refer to Module III - 1, B.4.a.

"2,600 gallons annually of other reactive waste. This quantity is calculated by multiplying the Process Design Capacity listed in Part A of the Permit Application at 10 gallons per day by 260 working days a year." Refer to Module III - 2, B.4.b.

MODULE I

GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and/or dispose of ~~on site~~ hazardous waste in accordance with the conditions of this Permit. Any treatment and/or disposal of hazardous waste not authorized in this Permit is prohibited. Subject to Hazardous Waste Management Regulation (HWMR-7) Part IX, 40 CFR §270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Act), (Sections 74-4-1 et. seq. NMSA 1979, as amended, 1989). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Act, or any other law providing for protection of public health or the environment. [HWMR-7, Part IX, 40 CFR §270.4 and §270.30(g)]

B. PERMIT ACTIONS

1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-7, Part IX, 40 CFR §270.41, §270.42, and §270.43. The filing of a request for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit condition. [HWMR-7, Part IX, 40 CFR §270.4(a) and §270.30(f)]

2. Permit Renewal

This Permit may be renewed as specified in HWMR-7, Part IX, 40 CFR §270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [HWMR-7, Part IX, 40 CFR §270.30(b)]

C. SEVERABILITY

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

D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in HWMR-7, Parts I, V, VII, VIII, and IX, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"facility" as used in this permit shall refer to the Thermal Treatment Facility unless otherwise specified by being followed by "(SNL/NM)".

"immediate" means acting or being without the intervention of another object, cause, or agency: Made or done at once.

"Secretary" means the Secretary of New Mexico Environment Department, or his/her designee or authorized representative.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of the Permit and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [HWMR-7, Part IX, 40 CFR §270.30(a)]

2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. [HWMR-7, Part IX, 40 CFR §270.10(h) and §270.30(b)]

3. Permit Expiration

Pursuant to HWMR-7, Part IX, 40 CFR §270.50, this Permit shall be effective for a fixed term not to exceed ten years. This Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see HWMR-7, Part IX, 40 CFR §270.10, §270.13 through §270.29) and, through no fault of the Permittee, the Secretary has not issued a new Permit, as set forth in HWMR-7, Part IX, 40 CFR §270.51.

4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit. [HWMR-7, Part IX, 40 CFR §270.30(c)]

5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment. [HWMR-7, Part IX, 40 CFR §270.30(d)]

6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [HWMR-7, Part IX, 40 CFR §270.30(e)]

7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. [HWMR-7, Part IX, 40 CFR §264.74(a) and §270.30(h)]

8. Inspection and Entry

Pursuant to HWMR-7, Part IX, 40 CFR §270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location. The permittee will be provided with the opportunity to request or obtain split or duplicate samples for Quality Assurance or Quality Control purposes.

9. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of HWMR-7, Part II, 40 CFR Part §261 or an equivalent method approved by the Secretary. Laboratory methods must be those specified in Test Methods

for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in the Waste Analysis Plan (See Permit Attachment 1). [HWMR-7, Part IX, 40 CFR §270.30(j)(1)]

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by HWMR-7, Part V, 40 CFR §264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells installed to detect releases from the TTF and associated ground-water surface elevations for the active life of the facility. [HWMR-7, Part V, 40 CFR §264.74(b) and §270.30(j)(2)]

c. Pursuant to HWMR-7, Part IX, 40 CFR §270.30(j)(3), records of monitoring information shall specify:

i. The dates, exact place, and times of sampling or measurements;

ii. The individuals who performed the sampling or measurements;

iii. The dates analyses were performed;

iv. The individuals who performed the analyses;

v. The analytical techniques or methods used; and

vi. The results of such analyses.

10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the Permitted facility. Any significant changes require the Secretary's approval prior to implementation. [HWMR-7, Part IX, 40 CFR §270.30(l)(1)]

11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [HWMR-7, Part IX, 40 CFR §270.30(l)(2)]

12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-7, Part IX, 40 CFR §270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-7, Part V, 40 CFR §264 and Part IX, 40 CFR §270 and this Permit. [HWMR-7, Part IX, 40 CFR §270.30(l)(3) and §264.12(c)]

13. Twenty-Four Hour Reporting

a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility.

b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility (SNL/NM);

iii. Date, time, and type of incident;

iv. Name and quantity of materials involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Secretary may waive the five-day written notice requirement in favor of a written report within 15 days. [HWMR-7, Part IX, 40 CFR §270.30(k)(1)]

14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.10. - 15., at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E. ~~14~~ 13.b [HWMR-7, Part IX, 40 CFR §270.30(l)(10)]

15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information. [HWMR-7, Part IX, 40 CFR §270.30(l)(11)]

F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his/her designee, or authorized representative, shall be signed and certified in accordance with HWMR-7, Part IX, 40 CFR §270.11 and §270.30(k).

G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Secretary should be sent by certified mail or given to:

Program Manager, RCRA Permit Section
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
P.O.Box 26110
Santa Fe, NM 87502

Telephone Number (505) 827-4308
FAX Number (505) 827-4389

H. CONFIDENTIAL INFORMATION

In accordance with HWMR-7, Part IX, 40 CFR §270.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the ~~Facility~~ Thermal Treatment Facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

1. Waste Analysis Plan, as required by HWMR-7, Part V, 40 CFR §264.13 and this Permit.

2. Inspection schedules, as required by HWMR-7, Part V, 40 CFR §264.15(b)(2) and this Permit.

3. Personnel training documents and records, as required by HWMR-7, Part V, 40 CFR §264.16(d) and this Permit.

4. Contingency Plan, as required by HWMR-7, Part V, 40 CFR §264.53(a) and this Permit.

5. Operating record, as required by HWMR-7, Part V, 40 CFR §264.73 and this Permit.

6. Closure Plan, as required by HWMR-7, Part V, 40 CFR §264.112(a) and this Permit.

II.D. SECURITY

The Permittee shall comply with the security provisions of HWMR-7, Part V, 40 CFR 264.14(b)(2) and (c) and Permit Attachment 2. In order to prevent unknowing entry, and minimize the possibility for the unauthorized entry of persons or livestock which may enter the active portion of any hazardous waste unit, the evaporative tank unit and the waste fuel treatment unit will maintain ~~seven foot high,~~ between a seven foot and eight foot high, surrounding chain link fences that will remain locked at all times unless they are being accessed for inspection, maintenance, sampling, treatment, or hazardous waste transfers.

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Permit Attachment 3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by HWMR-7, Part V, 40 CFR 264.15(c) and 40 CFR 264.602. Records of inspection shall be kept, as required by HWMR-7, Part V, 40 CFR 264.15(d).

II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as described in Permit Attachment 4, as required by HWMR-7, Part V, 40 CFR 264.16. Job descriptions for the Thermal Treatment Facility Personnel are found in Permit Attachment 4A. The training program shall include the instructional elements found in Permit Attachment 4B. The Permittee shall maintain training documents and records, as required by HWMR-7, Part V, 40 CFR 264.16(d) and (e).

II.G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment 5.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment ~~6A~~ 6, as required by HWMR-7, Part V, 40 CFR 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-7, Part V, 40 CFR 264.33.

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by HWMR-7, Part V, 40 CFR 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by HWMR-7, Part V, 40 CFR 264.35.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by HWMR-7, Part V, 40 CFR 264.37 and found in Attachment ~~6A~~ 6. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the most current Contingency Plan, Permit Attachment 6, whenever there is a fire, explosion, ~~or~~ release of hazardous waste or constituents outside the treatment unit which could threaten human health or the environment outside the Thermal Treatment Facility. As required by HWMR-7, Part V, and 40 CFR 264.51.

II.J.2. Copies of Plan

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.53.

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-7, Part V, 40 CFR 264.54. This immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-7, Part V, 40 CFR 264.55.

II.K. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

~~II.K.1 Operating Record~~

~~The Permittee shall maintain a written operating record at the facility, in accordance with HWMR-7, Part V, 40 CFR 264.73.~~

II.K.~~2~~1. Biennial Report

The Permittee shall comply with the biennial reporting requirements of HWMR-7, Part V, 40 CFR 264.75.

II.L. GENERAL CLOSURE REQUIREMENTS

II.L.1. Performance Standard

The Permittee shall close the facility, as required by HWMR-7, Part V, 40 CFR 264.111 and in accordance with the Closure Plan, Permit Attachment 7.

II.L.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with HWMR-7, Part V, 40 CFR 264.112(c), whenever necessary.

II.L.3. Notification of Closure

The Permittee shall notify the ~~Regional Administrator~~ Secretary in writing at least 45 days prior to the date on which he expects to begin final closure of any of the following: or final closure of the facility, as required by HWMR-7, Part V, 40 CFR 264.112(d).

II.L.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or dispose of on site all hazardous waste and shall complete closure activities, in accordance with HWMR-7 Part V, 40 CFR 264.113 and the schedules specified in the Closure Plan, Permit Attachment 7.

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by HWMR-7, Part V, 40 CFR 264.114 and the Closure Plan, Permit Attachment 7.

II.L.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-7, Part V, 40 CFR 264.115.

II.M. GENERAL POST-CLOSURE REQUIREMENTS

II.M.1. Post-Closure Care Period

The Permittee will remove or decontaminate the hazardous waste at the unit. Should inadequate removal or decontamination of the site occur, the Permittee will submit a Post-Closure Care Plan to the Secretary within 90 days from the date that the owner or Secretary determines that the hazardous waste management unit must be closed as a landfill. HWMR-7, Part V, 40 CFR 264.118(a).

MODULE III

THERMAL TREATMENT FACILITY

A. Thermal Treatment Facility - Module Highlights

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health an the environment. This module will describe:

Permitted and Prohibited Waste
Design and Operating Requirements
Detection and Monitoring Requirements
Requirements for Responses to Releases from the Unit

B. Permitted and Prohibited Waste

1. The Permittee may treat only those reactive wastes specified in Permit Attachment 1. Prohibited materials shall include radioactive nuclear waste, PCBs, and mixed waste.

2. Hazardous waste to be treated at the Thermal Treatment Facility shall meet the requirements specified in Attachment 1, Section 1.3.1, Descriptions of Acceptable Waste Categories and Attachment 1, Section 1.4, Boundary Conditions and Process Tolerance Limits. Waste to be treated at the unit shall be screened and verified in ~~according~~ accordance with Permit Attachment 1.

3. The Permittee shall apply for and receive a Permit Modification prior to treating and disposing of additional types of hazardous waste not identified in Attachment 1.

4. When the amount of any waste handled in a calendar year exceeds the amount listed for the corresponding waste code in the Part A Permit Application, the Permittee shall submit a report explaining the situation to the NMED. If the increase in annual quantities listed in the revised Part A will be used to prepare a new Attachment 1, which will become part of this Permit. If management practices specified in Permit Attachment 1 change as a result of increase in a new annual quantity, the Permittee shall request a Permit Modification identifying the changes. At present the Thermal Treatment Facility is limited to the treatment of the following quantities.

a. 15 kilograms annually of explosive substances (quantity taken from Part A of the Permit Application)

b. 2,600 gallons annually of other reactive waste. This quantity is calculated by multiplying the Process Design Capacity listed in Part A of the Permit Application as 10 gallons generated per day by 260 working days a year.

5. The Permittee is allowed to treat only hazardous wastes generated at the facility (SNL/NM). The Permittee is not allowed to receive hazardous waste from off-site for treatment at the Thermal Treatment Facility.

C. Design and Operating Requirements

1. The Permittee shall maintain the designed and constructed Thermal Treatment Facility according to the drawings contained in Permit Attachment 8 and the Operational Description contained in Permit Attachment 9.

2. The Permittee shall notify, as required by section I.E.10 of this permit, the Secretary and receive approval prior to making any significant unit changes.

3. The Permittee shall operate and maintain the Thermal Treatment Facility in accordance with the operating procedures contained in Permit Attachment 9. "Kickout" or untreated fragments should be retreated. If kickout is fully treated particles shall be disposed of at an authorized Waste Management Unit.

4. The Permittee Shall operate and maintain a precipitation cover in accordance with the specifications in and operating practices contained in Permit Attachment 9.

5. The Permittee shall manage accumulated precipitation in accordance with Permit Attachment 9.

6. The Permittee shall operate and maintain the Thermal Treatment Facility in order to minimize air emissions or exposure of people (onsite or offsite) to toxic or hazardous emissions in accordance with Permit Attachment 9 and 10. Additionally the Permittee shall not:

a. operate the Thermal Treatment Facility (burn) except between the hours of 9:00 am and 5:00 pm.

b. operate the Thermal Treatment Facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour.

c. operate the Thermal Treatment Facility (burn) when threatening weather is within 10 miles of the TTF.

7. Ash/residues from the Thermal Treatment Facility shall be managed in accordance with Permit Attachment 9.

D. Detection and Monitoring Requirements

The Thermal Treatment Facility shall be monitored in accordance with the procedures found in Attachment 9.

E. Requirements for Responses to Releases from the Unit

The Permittee shall respond to releases to ground water, surface water, air, and soil as specified in Permit Attachment ~~9~~ 6.

MODULE I

GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and/or containerize for disposal hazardous waste in accordance with the conditions of this Permit. Any treatment and/or containerization for disposal of hazardous waste not authorized in this Permit is prohibited. Subject to Hazardous Waste Management Regulation (HWMR-7) Part IX, 40 CFR § 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Act), (Sections 74-4-1 et. seq. NMSA 1979, as amended, 1989). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Act, or any other law providing for protection of public health or the environment. [HWMR-7, Part IX, 40 CFR § 270.4 and § 270.30(g)]

B. PERMIT ACTIONS

1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-7, Part IX, 40 CFR § 270.41, § 270.42, and § 270.43. The filing of a request for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit condition. [HWMR-7, Part IX, 40 CFR § 270.4(a) and § 270.30(f)]

2. Permit Renewal

This Permit may be renewed as specified in HWMR-7, Part IX, 40 CFR § 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall

consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [HWMR-7, Part IX, 40 CFR § 270.30(b)]

C. SEVERABILITY

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

D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in HWMR-7, Parts I, V, VII, VIII, and IX, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"facility" as used in this permit shall refer to the Thermal Treatment Facility unless otherwise specified by being followed by "(SNL/NM)".

"immediate" means acting or being without the intervention of another object, cause, or agency: Made or done at once.

"Secretary" means the Secretary of New Mexico Environment Department, or his/her designee or authorized representative.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of the Permit and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [HWMR-7, Part IX, 40 CFR § 270.30(a)]

2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. [HWMR-7, Part IX, 40 CFR § 270.10(h) and § 270.30(b)]

3. Permit Expiration

Pursuant to HWMR-7, Part IX, 40 CFR § 270.50, this Permit shall be effective for a fixed term not to exceed ten years. This Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see HWMR-7, Part IX, 40 CFR § 270.10, § 270.13 through § 270.29) and, through no fault of the Permittee, the Secretary has not issued a new Permit, as set forth in HWMR-7, Part IX, 40 CFR § 270.51.

4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit. [HWMR-7, Part IX, 40 CFR § 270.30(c)]

5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment. [HWMR-7, Part IX, 40 CFR § 270.30(d)]

6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and

adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [HWMR-7, Part IX, 40 CFR § 270.30(e)]

7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. SNL shall within thirty (30) days of the receipt of the new annual open burn permit, issued by the City of Albuquerque, submit an official copy to the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environment Department (NMED). [HWMR-7, Part IX, 40 CFR § 264.74(a) and § 270.30(h)]

8. Inspection and Entry

Pursuant to the New Mexico Hazardous Waste Act, NMSA 1978 § 74-4-4.3 (Repl. Pamp. 1993) and HWMR-7, Part IX, which incorporates 40 CFR § 270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location. The permittee will be provided with the opportunity to request or obtain split or duplicate samples for Quality Assurance or Quality Control purposes.

9. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of HWMR-7, Part II, 40 CFR Part §261 or an equivalent method approved by the Secretary. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in the Waste Analysis Plan (See Permit Attachment 1). [HWMR-7, Part IX, 40 CFR § 270.30(j)(1)]

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by HWMR-7, Part V, 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells installed to detect releases from the TTF and associated ground-water surface elevations for the active life of the facility. [HWMR-7, Part V, 40 CFR § 264.74(b) and § 270.30(j)(2)]

c. Pursuant to HWMR-7, Part IX, 40 CFR § 270.30(j)(3), records of monitoring information shall specify:

   i. The dates, exact place, and times of sampling or measurements;

   ii. The individuals who performed the sampling or measurements;

   iii. The dates analyses were performed;

   iv. The individuals who performed the analyses;

   v. The analytical techniques or methods used; and

   vi. The results of such analyses.

10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical/procedural alterations or additions to the Permitted facility or its operation as required by HWMR-7, Part IX, 40 CFR § 270.30(l)(1) and 40 CFR § 270.42.

11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [HWMR-7, Part IX, 40 CFR § 270.30(l)(2)]

12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-7, Part IX, 40 CFR § 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-7, Part V, 40 CFR § 264 and Part IX, 40 CFR § 270 and this Permit. [HWMR-7, Part IX, 40 CFR § 270.30(l)(3) and §264.12(c)]

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a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the Thermal Treatment Facility which could threaten the environment or human health outside the facility.

b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility (SNL/NM);

iii. Date, time, and type of incident;

iv. Name and quantity of materials involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Secretary may waive the five-day written notice requirement in favor of a written report within 15 days. [HWMR-7, Part IX, 40 CFR §270.30(k)(1)]

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The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.1. - 15., at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E.13.b [HWMR-7, Part IX, 40 CFR § 270.30(l)(10)]

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Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information. [HWMR-7, Part IX, 40 CFR § 270.30(l)(11)]

F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his/her designee, or authorized representative, shall be signed and certified in accordance with HWMR-7, Part IX, 40 CFR § 270.11 and § 270.30(k).

G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Secretary should be sent by certified mail or given to:

Program Manager, RCRA Permit Section
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
P.O.Box 26110
Santa Fe, NM 87502

Telephone Number (505) 827-4308
FAX Number (505) 827-4389

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I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

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1. Waste Analysis Plan, as required by HWMR-7, Part V, 40 CFR § 264.13 and this Permit.

2. Inspection schedules, as required by HWMR-7, Part V, 40 CFR § 264.15(b)(2) and this Permit.

3. Personnel training documents and records, as required by HWMR-7, Part V, 40 CFR § 264.16(d) and this Permit.

4. Contingency Plan, as required by HWMR-7, Part V, 40 CFR § 264.53(a) and this Permit.

5. Operating record, as required by HWMR-7, Part V, 40 CFR § 264.73 and this Permit.

6. Closure Plan, as required by HWMR-7, Part V, 40 CFR § 264.112(a) and this Permit.

MODULE II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

The Permittee shall construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by HWMR-7, Part V, 40 CFR § 264.31.

II.B. REQUIRED NOTICES

II.B.1. Hazardous Waste Imports

This permit does not allow the Permittee to accept wastes from a foreign source. If the Permittee is to receive hazardous waste from a foreign source, he shall apply and receive a permit modification in accordance with HWMR-7, Part IX, 40 CFR § 270.41 or 40 CFR § 270.42 prior to accepting such waste.

II.B.2. Hazardous Waste from Off-Site Sources

This permit does not allow the Permittee to accept wastes from off-site sources.

II.C. GENERAL WASTE ANALYSIS

The Permittee shall follow the waste analysis procedures required by HWMR-7, Part V, 40 CFR § 264.13, as described in the attached Waste Analysis Plan, Permit Attachment 1.

The Permittee shall verify the analysis of each waste stream prior to treatment as part of its quality assurance program, in accordance with the Waste Analysis Plan (Permit Attachment 1) or, if necessary, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

Process Knowledge is approved as a substitute for chemical analysis requirements provided one or more of the following conditions are met:

1. All wastes submitted for treatment at the TTF must be accompanied by a Material Safety Data Sheet (MSDS) and/or the equivalent for the original product; or

2. Purchase documents or photocopies of those documents specifying the original product contents; or

3. A certification from the waste generator specifying the contents in the waste stream. This certification must be reviewed and approved by DOE/SNL prior to the waste being treated at the TTF.

SNL must within thirty (30) days of the effective date of this permit submit a revised Waste Analysis Plan (WAP) that corrects the errors, omissions and/or references to non existing sections, in citations used in the WAP.

II.D. SECURITY

The Permittee shall comply with the security provisions of HWMR-7, Part V, 40 CFR § 264.14(b)(2) and (c) and Permit Attachment 2. In order to prevent unknowing entry, and minimize the possibility for the unauthorized entry of persons or livestock which may enter the active portion of any hazardous waste unit, the evaporative tank unit and the waste fuel treatment unit will maintain between a seven foot and eight foot high, surrounding chain link fences that will remain locked at all times unless they are being accessed for inspection, maintenance, sampling, treatment, or hazardous waste transfers.

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Permit Attachment 3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by HWMR-7, Part V, 40 CFR § 264.15(c) and 40 CFR § 264.602. Records of inspection shall be kept, as required by HWMR-7, Part V, 40 CFR § 264.15(d).

II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as described in Permit Attachment 4, as required by HWMR-7, Part V, 40 CFR § 264.16. Job descriptions for the Thermal Treatment Facility Personnel are found in Permit Attachment 4A. The training program shall include the instructional elements found in Permit

Attachment 4B. The Permittee shall maintain training documents and records, as required by HWMR-7, Part V, 40 CFR § 264.16(d) and (e).

II.G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR § 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment 5.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment 6, as required by HWMR-7, Part V, 40 CFR § 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-7, Part V, 40 CFR § 264.33.

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by 20 NMAC 4.1, Part V, 40 CFR § 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by HWMR-7, Part V, 40 CFR § 264.35.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by HWMR-7, Part V, 40 CFR § 264.37 and found in Attachment 6. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the most current Contingency Plan, Permit Attachment 6, whenever there is a fire, explosion, release of hazardous waste or constituents outside the treatment unit which could threaten human health or the environment outside the Thermal Treatment Facility. As required by 20 NMAC 4.1, Part V, and 40 CFR § 264.51.

II.J.2. Copies of Plan

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR § 264.53.

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-7, Part V, 40 CFR § 264.54. In the event of an emergency this immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-7, Part V, 40 CFR § 264.55.

II.K. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

II.K.1. Biennial Report

The Permittee shall comply with the biennial reporting requirements of HWMR-7, Part V, 40 CFR § 264.75.

II.L. GENERAL CLOSURE REQUIREMENTS

II.L.1. Performance Standard

The Permittee shall close the Permitted facility and site. The Permitted Facility is the current structure and the previous facility (built in 1969 and reconstructed in 1986). Closure will be as required by HWMR-7, Part V, 40 CFR § 264.111 and in accordance with the Condition II.L.2. The Closure Plan submitted, when approved will become Permit Attachment 7.

II.L.2. Amendment to Closure Plan

The Permittee shall submit a Closure Plan, to address all constituents from all activities at the Thermal Treatment Facility from 1980 through the final closure of this unit in accordance with HWMR-7, Part V, 40 CFR § 264.112(c). The closure plan will be submitted by SNL to the Secretary within 30 days of the effective date of this permit. The Secretary will either approve, require further amendment or reject the closure plan with regard to the requirements of 40 CFR § 264.110 through § 264.120 within thirty (30) days of the receipt of the closure plan.

II.L.3. Notification of Closure

The Permittee shall notify the Secretary in writing at least 45 days prior to the date on which he expects to begin final closure of any of the following: or final closure of the facility, as required by 20 NMAC 4.1, Part V, 40 CFR § 264.112(d).

II.L.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or containerize for disposal of on site all hazardous waste and shall complete closure activities, in accordance with HWMR-7 Part V, 40 CFR § 264.113 and the schedules specified in the Closure Plan, Permit Attachment 7.

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by HWMR-7, Part V, 40 CFR § 264.114 and the Closure Plan, Permit Attachment 7.

II.L.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-7, Part V, 40 CFR § 264.115.

II.M. GENERAL POST-CLOSURE REQUIREMENTS

II.M.1. Post-Closure Care Period

The Permittee will remove or decontaminate the hazardous waste at the unit. Should inadequate removal or decontamination of the site occur, the Permittee will submit a Post-Closure Care Plan to the Secretary within 90 days from the date that the owner or Secretary determines that the hazardous waste management unit must be closed as a landfill. HWMR-7, Part V, 40 CFR § 264.118(a).

MODULE III

THERMAL TREATMENT FACILITY

A. Thermal Treatment Facility - Module Highlights

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health an the environment. This module will describe:

Permitted and Prohibited Waste
Design and Operating Requirements
Detection and Monitoring Requirements, and
Requirements for Responses to Releases from the Unit

B. Permitted and Prohibited Waste

1. The Permittee may treat only those reactive wastes specified in Permit Attachment 1. Prohibited hazardous wastes shall include radioactive nuclear waste, PCBs, and mixed waste.

2. Hazardous waste to be treated at the Thermal Treatment Facility shall meet the requirements specified in Attachment 1, Section 1.3.1, Descriptions of Acceptable Waste Categories and Attachment 1, Section 1.4, Boundary Conditions and Process Tolerance Limits. Waste to be treated at the unit shall be screened and verified in accordance with Permit Attachment 1.

3. The Permittee shall apply for and receive a Permit Modification prior to treating additional types of hazardous waste not identified in Attachment 1.

4. When the amount of any waste handled in a calendar year exceeds the amount listed in this condition, III.B.4., the Permittee shall submit a report explaining the overage to the NMED. If the increase in annual quantities is expected to be repeated then the information will be used to prepare a new Attachment 1 and/or Revised Part A. The revised Attachment 1 and/or Part A documents will become part of this Permit after proper modification procedures are completed. 20 NMAC 4.1, Part IX, 40 CFR § 270.42.

The Thermal Treatment Facility is limited to the treatment of the following annual quantities of reactive wastes as follows:

3,285 kilograms (7,300 pounds) maximum net weight of explosive contaminated substances (D001, D003, D011, F003 and F005) combined as long as the individual "Boundary Condition" quantities specified in Attachment 1 are not exceeded. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. Nine (9) kilograms per burn event times 365 days per year equals 3,285 kilograms. The "Boundary Condition for explosive contaminated substances is located in Attachment 1, Section 1.4.1.IV and incorporated into this permit by Module III, Condition B.2.

5. The Permittee is allowed to treat only hazardous wastes generated at the facility (SNL/NM). The Permittee is not allowed to receive hazardous waste from off-site for treatment at the Thermal Treatment Facility.

C. Design and Operating Requirements

1. The Permittee shall maintain the designed and constructed Thermal Treatment Facility according to the drawings contained in Permit Attachment 8 and the Operational Description contained in Permit Attachment 9.

2. The Permittee shall operate and maintain the Thermal Treatment Facility in accordance with the operating procedures contained in Permit Attachment 9. "Kickout" or untreated fragments shall be retreated. If kickout is fully treated particles shall be disposed of at an authorized Waste Management Unit.

3. The Permittee Shall operate and maintain a precipitation cover in accordance with the specifications in and operating practices contained in Permit Attachment 9.

4. The Permittee shall manage accumulated precipitation in accordance with Permit Attachment 9.

5. The Permittee shall operate and maintain the Thermal Treatment Facility in order to minimize air emissions or exposure of people (on-site or off-site) to toxic or hazardous emissions in accordance with Permit Attachment 9 and 10. Additionally the Permittee shall not:

   a. operate the Thermal Treatment Facility (burn) except between the hours of 7:00 am and 5:00 pm.

   b. operate the Thermal Treatment Facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour.

   c. operate the Thermal Treatment Facility (burn) when threatening weather is within 10 miles of the TTF. Threatening weather is defined as winds in excess of 35 mph, tornados, electrical storms with or without precipitation of any type, snow storms with a visibility of less than 3/8 ths of a mile, rain with accumulations greater than 3/10 ths of accumulation per hour, any hail, sleet and/or ice storms.

6. Ash/residues from the Thermal Treatment Facility shall be managed in accordance with Permit Attachment 9.

D. Detection and Monitoring Requirements

The Thermal Treatment Facility shall be monitored in accordance with the procedures found in Attachment 9.

E. Requirements for Responses to Releases from the Unit

The Permittee shall respond to releases to ground water, surface water, air, and soil as specified in Permit Attachment 6.

1.0 Waste Analysis Plan

This waste analysis plan (WAP) has been prepared for thermal treatment at the TTF in accordance with EPA/530-SW-84-012, Waste Analysis Plans, A Guidance Manual (EPA, 1984). Accordingly, this section includes information on the waste to be managed; a description of boundary conditions and process tolerance limits; a discussion of parameters, rationales, and test methods; details of planned waste sampling and analysis; a description of the waste screening and verification process; and a description of the quality assurance/quality control program. Figure 1-1 provides an overview of the waste screening and verification process that is described in this chapter.

The TTF is a thermal treatment facility owned by the DOE and operated by DOE and SNL. The hazardous wastes to be treated at the TTF are limited to small quantities of explosive waste (D003) potentially contaminated with hazardous waste meeting any of the following EPA hazardous waste codes: F005, F003, D001, or D011. This plan describes the measures that will be taken to assure that the wastes treated at the TTF comply with requirements of NMHWMR-7, Pt. V, §264.13, and the unit specific requirements of NMHWMR-7, Pt. V, Subpart X. The information collected under this WAP gives SNL sufficient information to safely manage the hazardous constituents of the waste to be treated at the TTF.

1.1 Justification for Use Knowledge of Process to Characterize Waste

Explosive waste to be treated at the TTF will be characterized through the use of Knowledge of Process (KOP) instead of sampling and analysis for the following reasons:

- It is not possible to sample and analyze most explosive waste streams due to the danger it presents to human health.
- Few labs exist which can analyze explosive waste samples and those that can are limited to very few waste streams.
- Due to the small quantities of waste, entire waste streams will be consumed by analysis.
- SW-846 methods do not include specific tests for most explosives, and it is unclear what alternative approved method could be used.
- Information from analysis would not improve knowledge of the waste because the explosives in the waste are unreacted and, therefore, unchanged from the original product.
- There is currently no other available treatment option for some explosive waste streams. This could prevent timely disposition of these wastes and, thus, cause a threat to human health and the environment.

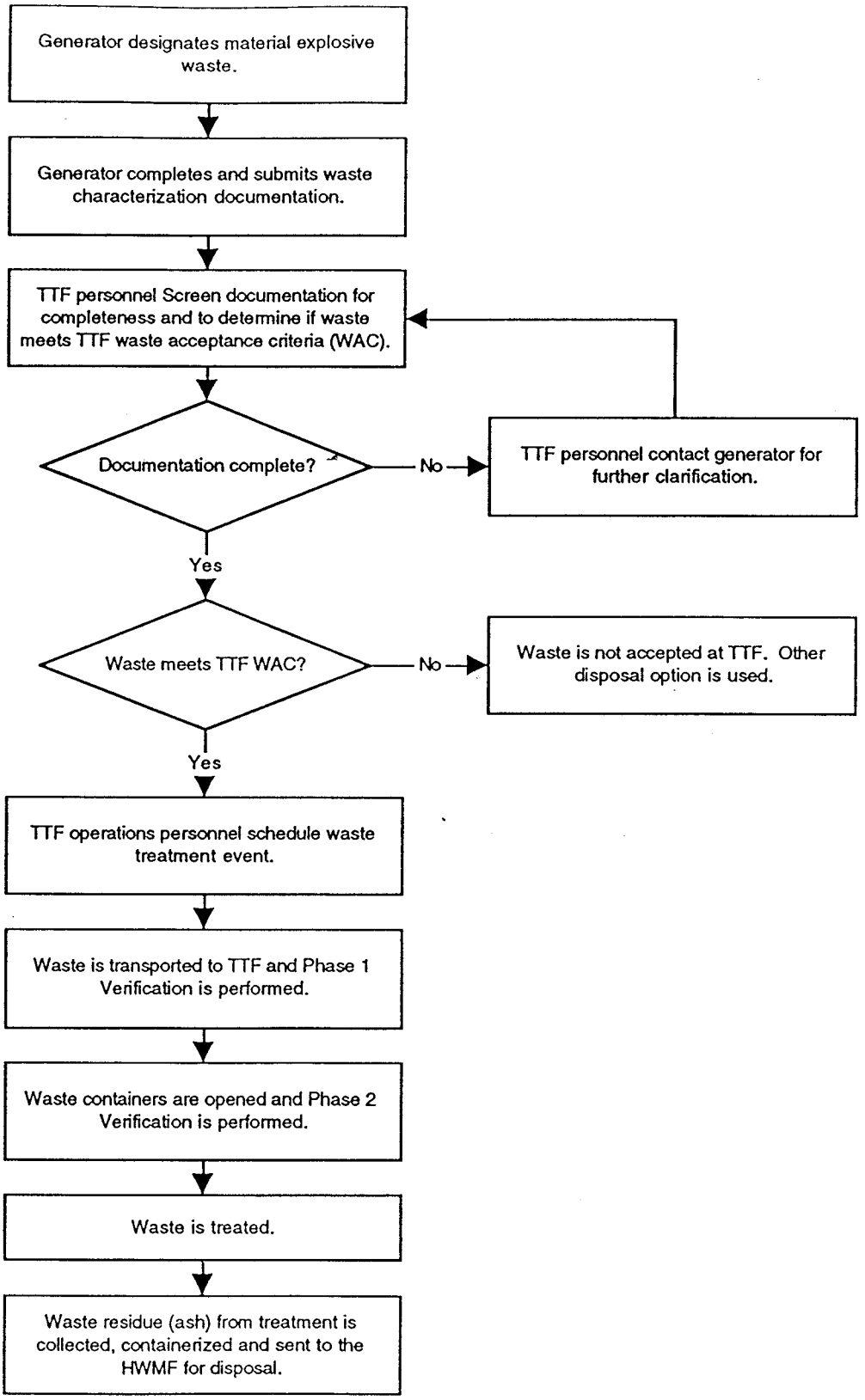


FIGURE 1-1
OVERVIEW OF WASTE
SCREENING AND VERIFICATION PROCESS

1.2 Containers

Explosive materials will be packaged for on site transport to the TTF in an SNL/NM-approved transportation containers that provide protection equivalent to U.S. Department of Transportation (DOT)-authorized containers. SNL/NM-approved transportation containers include the following:

- DOT-authorized containers received from the manufacturer, supplier, or other DOE contractor
- SNL/NM-modified, reinforced ammunition containers
- DOE (Mound) aluminum suitcases
- Strong fiberboard boxes
- Strong, cleated wooden boxes.

In addition to approved transportation containers, waste items will be contained inside inner containers such as plastic or Velostat antistatic bags.

Inner containers of waste are removed from the transportation containers just before placement inside the TTF burn pan. The empty transportation containers are returned to the explosive storage team for reuse. There are no plans to store waste in containers at the TTF. Waste will not be transported to or accepted for treatment at the TTF unless all preparations for treatment have been completed. If inner containers holding waste have been placed inside the burn pan and the treatment event is aborted and it is deemed unsafe to remove the waste, the burn pan will be remotely covered with the burn pan lid. The waste will remain in the burn pan until it is possible to perform treatment or remove the waste. The burn pan will provide primary containment of the waste; the steel lined concrete pad will provide secondary containment. All container requirements of NMHWMR-7, Pt. V, Subpart I, will be met while the waste is "stored" in the burn pan.

1.3 Identification of Waste to be Managed

The TTF is used to treat explosive substances and explosive contaminated wastes generated at SNL/NM. The wastes to be treated at the TTF are limited to explosive waste (D003) potentially contaminated with wastes that meet the following EPA hazardous waste codes: F005, F003, D001, and D011. Waste codes, for waste to be treated at the TTF, are known as a result of very complete records of process knowledge. This section provides an overview of acceptable waste categories, chemical and physical properties of the waste and a description of the operations that generate explosive hazardous wastes.

1.3.1 Descriptions of Acceptable Waste Categories

Categories of explosive waste which may be accepted for treatment at the TTF include high explosives, propellants, and pyrotechnics in the form of pure substances and contaminated

solid and liquid wastes. The waste generators must provide written documentation which accurately describes the waste to determine if it is in an acceptable waste category.

Waste high explosive substances that may be treated at the TTF include, but are not limited to:

- Hexanitroazobenzene (HNAB)
- Pentaerythritol tetranitrate (PETN)
- Hexahydrotrinitrotriazine (RDX)
- Trinitrotoluene (TNT)
- Nitroglycerine
- Octohydrotetranitrotetraozcine (HMX)
- Hexanitrostilbene (HNS)
- Triaminotrinitrobenzene (TATB)
- Silver acetylide/silver nitrate (SASN).

Waste propellants which may be treated at the TTF include, but are not limited to:

- Single base propellants (nitrocellulose)

- Double base propellants (nitrocellulose + nitroglycerine)

- Triple base propellants (nitrocellulose + nitroglycerine + nitroguanidine)

- Composite propellants containing:

  - Ammonium nitrate
  - Sodium nitrate
  - Potassium nitrate
  - Ammonium perchlorate
  - Potassium perchlorate

- Black powder (potassium nitrate + sulfur + charcoal).

Waste pyrotechnics which may be treated at the TTF include, but are not limited to titanium hydride/potassium perchlorate.

Solid wastes contaminated with explosives which may be treated at the TTF include paper towels, rags, wipes, tissues, swabs, cloth or paper filters and filter elements, etc. It may be necessary to saturate the solid wastes with water before they are placed inside the TTF burn pan.

Liquid wastes contaminated with explosives which may be treated in the TTF include water, alcohols, and solvents. Recovery/recycling of the liquids would present a serious hazard if any explosive contaminant were present. Substitution of nonhazardous solvents (e.g., water)

for hazardous solvents (e.g., acetone) has been practiced whenever possible; however, the use of hazardous solvents is necessary for some applications (e.g., the formulation of SASN).

1.3.2 Chemical and Physical Properties

This section includes a description of the chemical and physical characteristics of the explosive hazardous wastes to be treated at the TTF. The hazardous constituents in the explosive hazardous wastes to be treated at the TTF largely consist of the following:

Nonhalogenated Organic Compounds—Waste acetone (F003), methyl ethyl ketone, and toluene (F005) contaminated with explosives are the most prevalent nonhalogenated organic compounds to be treated at the TTF. These solvents are used in the handling of explosive compounds during research and development operations at SNL/NM.

Ignitable Liquids—Isopropyl alcohol (D001) is often used in the handling of explosive compounds during research and development operations at SNL/NM. In some cases it will be used to facilitate treatment of explosive waste.

Toxicity Characteristic Metal—Silver (D011) is present in SASN and is the only toxicity characteristic metal present in any of the explosive materials to be treated at the TTF.

Reactive Compounds—Reactive (i.e., explosive) substances (D003) are treated at the TTF and include high explosives, propellants, and pyrotechnics.

1.3.3 Operations Generating Explosive Hazardous Waste

All wastes to be treated at the TTF are generated at SNL/NM. These wastes are generated as a result of specific processes and activities that are well defined and well controlled, enabling SNL/NM to characterize waste streams on the basis of their KOP and the raw materials used. Prior to accepting waste for treatment at the TTF a detailed chemical and physical characterization of the waste must be performed is accordance with the requirements of NMHWMR-7, Pt. V, §264.13(a)(1). The characterization of hazardous waste is accomplished by the application of KOP. KOP is defined in NMHWMR-7, Pt. V, §264.13 (c)(2) as waste identification by applying knowledge of the hazardous characteristics of the waste based on the materials or processes used.

In addition, NMHWMR-7, Pt. V, §264.13 (c)(2) specifies that the chemical and physical analysis of a representative sample of the waste may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. To ensure detailed and accurate waste characterization exists the process outlined in Section 1.7 (Waste Screening and Verification) is used.

1.3.4 Waste Generated at the TTF

TTF-generated waste includes the by-products of thermal treatment and may include contaminated water collected in the catch tank.

The principal by-products of decomposition of the explosive waste treated in the TTF are ash (carbon), produced from burned solid wastes (e.g., paper towels, cloth filters, etc.) and gases (i.e., nitrogen, water vapor, carbon dioxide, carbon monoxide, sulfur dioxide, diatomic oxygen, and traces of nitrous oxides) produced by the decomposition of explosives. Elemental silver will be present in the ash only when SASN is treated at the TTF. The contents of the burn pan after a treatment event are containerized, managed as hazardous waste and disposed of through normal procedures at the HWMF.

The water collected in the catch tank primarily consists of precipitation. Water collected in the catch tank will be managed as hazardous waste if it is suspected to be contaminated with any hazardous waste constituents or is derived from wastes treated at the TTF. If the water is known to be runoff resulting from precipitation and not suspected to be contaminated with any hazardous waste constituents, it will be assumed to meet City of Albuquerque wastewater discharge parameters and be discharged directly to the TA-III sanitary sewer system. If the water is suspected to be contaminated with hazardous waste constituents, or derived from wastes treated at the TTF, it will be containerized and arrangements will be made for disposal into the City of Albuquerque sewer treatment system with a one time notice placed in the facility file in accordance with NMHWMR-7, Part VIII, §268.7(a)(6). If the wastewater cannot be discharged into the City of Albuquerque sewer treatment system, it will be handled through normal procedures at the HWMF.

1.4 Boundary Conditions and Process Tolerance Limits

Boundary conditions are defined as the maximum values of waste properties that, if exceeded, would indicate that an incoming waste does not meet established, acceptable values for these properties. Process tolerance limits are defined as those characteristics of a waste that a waste management process can handle while maintaining permit compliance. Waste that exceeds boundary conditions or could lead to an exceedance of process tolerance limits will not be accepted for treatment at the TTF. Boundary conditions and process tolerance limits have been established to ensure compliance with RCRA waste management requirements.

1.4.1 Boundary Conditions

Waste(s) to be treated at the TTF shall meet the following boundary conditions:

- High explosive substances shall be in the form of powders, pellets, or granules less than 0.5 inches (1.25 centimeters) in diameter.

- Propellants or pyrotechnics shall be in the form of powders, pellets, or granules less than 0.5 inches in diameter.

- The maximum net explosive weight of high explosives and DOT hazard class 1.1 explosives treated during any single burn event shall not exceed one ounce (28.4 grams).

- The maximum net explosive weight of propellants and pyrotechnics, except DOT hazard class 1.1 explosives treated during any single burn event shall not exceed one pound (0.45 kilogram).

- The maximum total quantity of explosive contaminated liquids treated during any single burn event shall not exceed two gallons (7.57 liters).

- The maximum total quantity of waste (explosive, solid and liquid combined) treated during any single burn event shall not exceed twenty pounds (9 kilograms).

1.4.2 Process Tolerance Limits

Wastes to be treated at the TTF shall not be:

- Primary explosives other than SASN

- Potentially fragment producing when treated

- Explosives which are confined

- Explosives packaged with items which could become projectiles (e.g., wood, metal, or plastic) when treated

- Unknown or uncharacterized explosives

1.5 Parameters, Rationales, and Test Methods

Waste characterization information (i.e., KOP) is provided by the generators and reviewed by TTF personnel to ensure that the explosive hazardous wastes proposed for treatment at the TTF are properly characterized and can be safely managed. The waste characterization information to be provided by the generator must include information on the presence of RCRA-regulated metals and volatile organic compounds as defined in NMHWMR-7, Pt. II, Subpart C. The parameters of interest and the rationale for including each parameter in this plan are summarized below.

1.5.1 Wastes To Be Treated at the TTF

Knowledge of the original chemical constituents used and the operations that generated the waste are sufficient to determine if the waste is hazardous or contains hazardous constituents. The risks inherent in sampling and analyzing explosive wastes outweigh the potential value of the data obtained.

1.5.2 Wastes Generated as a Result of Treatment at the TTF

The only potential hazardous waste remaining after a treatment event is the ash residue which is derived from the destruction of reactive wastes potentially contaminated with metals and spent solvents; thus, in accordance with land disposal restriction guidance, the residue is considered to be a hazardous waste "derived from" the treated waste. Because administrative

controls on waste acceptance and treatment ensure that KOP is sufficient to characterize the waste to be treated, the waste generated as a result of treatment (i.e., ash residue) is also considered to be characterized through KOP.

The ash residue will be containerized and managed through the HWMF for ultimate disposal in accordance with the land disposal restrictions at an off-site hazardous waste management facility.

1.6 Waste Sampling Plan and Data Analysis

Waste to be treated at the TTF will not be sampled. The wastes treated in the TTF are produced according to documented formulation processes or are known, commercially manufactured explosives, the composition of the waste is well known. Variability occurs only in the relative amounts of nonexplosive wastes (e.g., water, alcohol, solvents) contaminated with explosives. Sampling and subsequent laboratory analyses would present unnecessary hazards to personnel; therefore, KOP and written documentation provided by the generators are the only methods used to determine the characteristics of the waste before treatment at the TTF.

Ash residue is "derived from" treated wastes and will be handled as hazardous waste contaminated with the listed constituents of the treated waste. If water collected in the catch tank is suspected to be contaminated with hazardous waste constituents, or derived from wastes treated at the TTF, it will be containerized and arrangements will be made for disposal into the City of Albuquerque sewer treatment system with a one-time notice placed in the facility file in accordance with NMHWMR-7, Pt. VIII, §268.7(a)(6). If the wastewater cannot be discharged into the City of Albuquerque sewer treatment system, it will be handled through normal procedures at the HWMF.

1.7 Waste Screening and Verification

All waste to be treated at the TTF will be screened and verified prior to treatment. Screening will insure that the waste meets the waste acceptance criteria established in Sections 1.3.1 (Description of Acceptable Waste Categories) and 1.4 (Boundary Conditions and Process Tolerance Limits) based on documentation provided by the generator. Verification is performed to ensure that the documentation is consistent with a visual inspection of the waste.

Screening—TTF personnel will screen all waste intended for treatment to insure that it meets the waste acceptance criteria prior to transportation to the TTF. Screening is performed on the waste characterization documentation provided by the generator of the waste. The information contained in the waste characterization documentation will include at a minimum:

- The type and name of all explosives in the waste
- The net weight of each explosive in the waste
- The gross quantity of the waste

- The United Nationals Organization (UNO) hazard classification and compatibility group of the waste

- A complete list of hazardous metals and/or chemicals present in the waste and their approximate quantities

- The type of container the waste is in

- Certification signed by generator regarding the accuracy of the information

- Technical information, such as an MSDS, will be requested of the generator if TTF personel do not already have it.

Figures 1-2 and 1-3 are examples of the documentation provided by the generators to TTF personnel. If the documentation is incomplete or inadequate TTF personnel will contact the generator for further clarification. Documentation will be provided for the contents of each waste item. TTF personnel shall compare the information on the documentation against the waste acceptance criteria. Only waste which meets the waste acceptance criteria will be transported to the TTF and accepted for treatment.

Verification—All waste shipments to the TTF will be verified in two phases. Phase 1 is to insure shipping documentation completeness and Phase 2 is to insure that the waste delivered corresponds to the screened documentation provided for that waste.

Phase 1 Verification—Examination of the Waste Shipping Documents. Upon receipt of a waste shipment at the TTF, a determination of shipping document completeness will be made by TTF personnel. Each shipping document that accompanies a waste shipment will be checked to ensure that the following information is complete:

- The shipment identification number

- The proper DOT basic description

- The quantity (weight) of waste in the shipment

- The number and type of containers in the shipment

- A signed and dated certification of the shipment's content

- The shipment labels and placards match the shipping document

- Transportation containers are visually examined for deficiencies such as severe dents, cracks, corrosion.

TO: Hazardous Waste Management Facility, MS 1117
Sandia National Laboratories
Albuquerque, New Mexico 87185-1117

SA 2008-EWD (2-94)

EXPLOSIVE WASTE DISPOSAL REQUEST

Fill in all unshaded areas by printing or typing. See front cover for instructions. Call 844-3470 for further assistance.

DISPOSAL REQUEST NUMBER

EDR000023

Requested by (Last Name, First Name)	Social Security No./E No.	Phone Number	Org. No.	Mail Stop	Case Number (Required)

LOCATION OF ITEMS	Tech Area	Building	Room	Further Location Directions

RMMA DISCLAIMER: Was any material on this form generated or stored within a Radioactive Materials Management Area (RMMA)? ☐ Yes ☐ No

(If Yes, Certification Form 19D-3 (ES&H Manual) must be attached)

Item No.	Sec. Class.	Waste Code	Waste Description (Completely describe the waste item. Include the proper explosive name and, if present, all chemical contaminants and the following substances: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and asbestos.)	Primary Container Type	UNO Haz. Class.	Total NEW	Total Quantity of Waste	PWA No.	PWA Stream No.	HWMF USE ONLY CONT.	ID	FROM	TO

I certify that the above information is true and correct to the best of my knowledge. The waste is packaged properly, labeled with contents, and is safe for handling by the waste pickup crew. Based upon process knowledge and operational procedures, or radiological analysis, this waste meets all release criteria established by the DOE for certifying (see ES&H Manual, RMMA) the waste does not contain any DOE-added radioactivity.

SIGNATURE OF REQUESTER _____ DATE _____

HWMF USE ONLY REVIEWED FOR PICKUP	COMMENTS			
PICKUP PERSONNEL	DATE	RECEIVED AT	RECEIVED BY	DATE/TIME
SAMPLE ☐ Yes ☐ No	HAZ. CAT. ITEM NOS.		LAB ANALYSIS NOS.	

Form Rec'd. Date
Chemist Rec'd. Date
Enter Date
2nd Entry Rec'd. Date
2nd Enter Date
QA Check

WHITE - SEND TO HWMF CANARY - SEND TO HWMF PINK - ORIGINATOR'S COPY

Figure 1-2
Example of Explosive Waste Disposal Request Form

SF 6477-EEW (7-94)

EXPLOSIVE WASTE WORKSHEET

EWDR No.	Item No.
EDR	

SECTION 1, WASTE INFORMATION:

Item is waste because it is: ☐Spent, damaged, or scrap (cannot be used). ☐Excess (can be used). ☐Other: _____

Waste category is: ☐Bulk explosive substance (complete Section 2). ☐Articles which contain explosives (complete Sections 2 & 3). ☐Explosive contaminated items such as wipes (complete Sections 2 & 4). ☐Other: _____

UNO hazard class and compatibility group of waste item: 1. _____ Original UNO hazard class and compatibility group if different: 1. _____

If the waste item is compatibility group "L" explain why and/or if it was subject to any process which may have changed its physical or chemical characteristics, describe the process: _____

Check each of the following chemicals, if any, that are present in the waste item:

☐Arsenic ☐Barium ☐Cadmium ☐Chromium ☐Lead ☐Mercury ☐Selenium ☐Silver ☐Asbestos

☐Solvents or other chemicals: _____

Type of container waste item is in: _____ Type of transportation container: _____

SECTION 2, EXPLOSIVE INFORMATION:

List the explosive type (high explosive = HE, propellant = PP, pyrotechnic = PY), explosive name, net explosive weight (NEW) and units of each explosive substance in the waste (for articles list the NEW per article): _____

Total NEW for all explosive in waste item (for articles total NEW = NEW per article times number of articles): _____ units: _____

Is the explosive wetted or desensitized? ☐Yes ☐No. If yes, with what: _____

SECTION 3, ARTICLE INFORMAITON: (articles must be identical)

Number of articles: _____ Name of article: _____ Manufacturer and model number: _____

List all non-explosive materials the article is comprised of: _____

SECTION 4, CONTAMINATED ITEM INFORMATION:

List all non-explosive materials the contaminated item is comprised of: _____

Figure 1-3

Example of Explosive Waste Worksheet

If there are discrepancies, they will be resolved by contacting the generator before the shipping document is signed by TTF personnel. If the discrepancies cannot be resolved, TTF personnel will reject the shipment.

Phase 2 Verification—When waste is transported to the TTF for treatment and removed from its transportation container, the TTF operator will visually compare the contents to ensure they match the description on the documentation provided by the generator. The visual inspection includes content identification and quantity estimation. If any waste fails verification, the shipment will be rejected. The generator will be contacted to resolve the discrepancy.

1.8 Quality Assurance/Quality Control Program

Waste characterization quality assurance (QA)/quality control (QC) ensures that the characterization data obtained from waste generators is suitable for regulatory compliance purposes. QA/QC practices are employed for the management of all records associated with waste screening and verification.

Because important decisions regarding the treatment and disposal of hazardous waste generated at SNL/NM are based on the results of waste characterization, a program to ensure the reliability of KOP data is essential. The two major facets of the SNL/NM program ensuring data reliability are (1) documentation to ensure that information is traceable to the contents of specific waste containers and (2) a QA program that mandates documentation of the generator's KOP. Documentation consists of the documentation completed by the generator to identify knowledge of the waste and/or process that generated the waste. The documentation is checked by TTF personnel.

ATTACHMENT 2

SECURITY PLAN

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 SECURITY

The purpose of this section is to describe the measures taken at the TTF to prevent hazards. It describes the security equipment and procedures in place that continuously monitor and control entry onto the active portion of the facility, including 24-hour security surveillance, fencing, and signs. The security requirements contained in NMHWMR-7, Pt. V, §264.14, and NMHWMR-7, Pt. IX, §270.14(b)(4), require that security be provided by 24-hour surveillance or if that requirement cannot be met, a barrier and means to control entry be provided if these requirements cannot be met. (A waiver from the security requirements may be requested. The following sections demonstrate that the TTF facility fully complies with the requirements and that a waiver is not requested.)

1.1 Security Procedures and Equipment

The design and operation of the TTF fully meet the security requirements contained in NMHWMR-7, Pt. V, §§264.14(b) and (c). A waiver under NMHWMR-7, Pt. V, §264.14(a) is not requested as the TTF has 24-hour security surveillance and means to control entry. In addition, warning signs are provided. The TTF facility meets the security requirements as discussed below.

1.2 24-Hour Surveillance System

The TTF facility has a 24-hour surveillance system (i.e., surveillance by SNL/NM security personnel who continuously monitor and control entry into TA-III). Consequently, the TTF facility complies with the requirements of NMHWMR-7, Pt. V, §264.14(b)(1). SNL/NM security patrols according to a 24-hour, seven-days-a-week schedule. The major duties of SNL/NM security personnel are to control personnel, vehicle, and material access/egress. During nonwork hours, SNL/NM security conducts documented security patrols of the TA-III perimeter fence.

1.3 Barrier and Means to Control Entry

The existence of a barrier and a means to control entry demonstrates compliance with NMHWMR-7, Pt. V, §264.14(b)(2). Each is discussed in detail in the following sections.

1.4 Barrier

The TTF is located within a completely fenced area (i.e., 8-foot [2.4-meter], chain-link fence). The gate to the TTF area is locked except when TTF personnel enter the area for inspections or treatment operations. The TTF fenced area is within the fenced Building 6715 Complex.

The Building 6715 Complex is within TA-III which is enclosed by perimeter fences that are patrolled by SNL/NM Security 24 hours a day. Access to TA-III is permitted through only one gate that is guarded 24 hours per day. TA-III is within KAFB. Access to KAFB is restricted through five gates that are guarded 24 hours per day.

1.5 Means to Control Entry

Entrance to TA-III, whether by personnel or vehicles, is through one controlled gate. TA-III access control procedures are designed to ensure that only properly identified and authorized persons, vehicles, and property are allowed entrance to and exit from the TTF. A personnel identification and access control system is maintained within TA-III. Employees identify themselves with an identification badge when entering or leaving the premises. SNL/NM security personnel require proper authorization before admitting visitors to TA-III. In addition, visitors are required to wear a temporary badge and to be accompanied by an authorized escort. The protective force is on duty 24 hours per day, 365 days per year. Because entry to the active portion of the facility is controlled at all times, the requirements of NMHWMR-7, Pt. V, §264.14(b)(2)(ii), are met.

1.6 Warning Signs

The permanent chain-link fence surrounding the TTF is posted with No Smoking, Danger: Explosive Hazard/Stay Clear, and Danger: Unauthorized Personnel Keep Out signs in English. The Danger: Unauthorized Personnel Keep Out sign is also in Spanish. The signs are posted on the north, east, west, and south fences. The signs are legible from a distance of 25 feet (8 meters) and can be seen from any approach to the facility. The TTF fully complies with NMHWMR-7, Pt. V, §264.14(c).

1.7 Waiver

The TTF facility fully complies with all three of the requirements of NMHWMR-7, Pt. V, §§264.14(b) and (c), as described in Sections 5.1.1.1 and 5.1.1.2, and a waiver is not requested.

ATTACHMENT 3

INSPECTION SCHEDULE

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 Inspectional Schedule

The TTF is routinely inspected for potential problems with safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting or responding to hazards. These items are inspected for malfunctions, deterioration, operator errors, and/or discharges which could lead to a release of hazardous waste constituents to the environment or pose a threat to human health.

The TTF does not manage hazardous waste using tanks, surface impoundments, waste piles, land treatment, landfills, or drip pads. Therefore, NMHWMR-7, Pt. V, §§264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, and 264.574 are not applicable to the TTF. In addition, NMHWMR-7, Pt. V, §§264.1033, 264.1052, 264.1053 and 264.1058, are not applicable to the TTF because the TTF does not perform distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

Requirements of NMHWMR-7, Pt. V, §264.15(d), are met by the inspections for each item or system included in Table 1. The results of the inspections are maintained for at least three years. The inspection logs include the date and time of inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions. TTF personnel will use an inspection form similar to the one shown in the Permit Application Part B, Table 1.

1.1 General Inspection Requirements

Permit Application, Part B, Table 5-1 lists the safety and emergency equipment, security devices, and operating and structural equipment that are important to the prevention or detection of, or the response to, environmental or human health hazards caused by hazardous materials. These items are inspected weekly. When in use, daily inspections are made of TTF areas subject to spills, such as loading and unloading areas, looking for deterioration in structures, mechanical items, floor coatings, equipment, malfunctions, etc., in accordance with NMHWMR-7, Pt. V, §264.15(b)(4). As required in NMHWMR-7, Pt. V, §264.33, TTF inspection procedures for communication and alarm systems, fire protection equipment, and spill control and decontamination equipment include provisions for testing and maintenance to ensure that the equipment will be operable in an emergency.

1.1.1 Types of Problems

The inspections for the items listed in Table 5-1, include the types of problems (e.g., malfunctions, cracks in coatings or welds, deterioration) to be looked for during the inspection of each item, if are compliance with

Table 5

SNL/NM Thermal Treatment Facility Inspection Form

Inspector: _____ Organization Number: _____ Weekly Inspection: _____

Date of Inspection: _____ Time of Inspection: _____ Multiday burn inspection: _____

Inspected Equipment	Inspection Criteria	Condition	
		OK	Not OK
Safety and Emergency Equipment:			
Fire Extinguisher	Present, charged and in good condition		
Personal protective equipment	Present and in good condition		
Telephone	Present and operational		
Red warning beacons	Present and operational		
Water spigot and hose	Present, operational and in good condition		
Burner control warning bell	Operational when burner control key switch is on		
Public address system	Operational		
First-aid kit	Present and stocked		
Eye wash and safety shower	Operational and in good condition		
Spill control equipment	Present and in good condition		
Operating and Structural Equipment:			
Burn pan[a]	Present, leak free, and in good condition		
Burn pan lid[a]	Operational and in good condition		
Burn cage[a]	Present and in good condition		
Burn cage door[a]	Operational and in good condition		
Steel-lined concrete pad[a]	Free of cracks and in good condition		
Filter element[a]	Free of leaks and in good condition		
Rain catchment tank[a]	Free of leaks and in good condition		
Area condition	Clean and free of weeds		
Loading/unloading area	Clean, free of spills, in good condition		

[a]Items not inspected in multiday burn inspection.

Sandia National Laboratory
Thermal Treatment Facility
NMED Control Copy

Table 5-1 (Continued)

SNL/NM Thermal Treatment Facility Inspection Form

Inspector: _____ Organization Number: _____

Date of Inspection: _____ Time of Inspection: _____ a.m./p.m.

Inspected Equipment	Inspection Criteria	Condition	
		OK	Not OK
Security Devices:			
Fence	In good repair		
Gate	Locked and in good repair		
Warning signs	On each gate and in good condition		
Is there any hazardous waste on-site? ____Yes ____No If yes, complete section below.			
Waste containers	Leak free, labeled, closed and in good condition		
Storage location	Away from sources of ignition or heat greater than 50 feet from 6715 fence		
List all NOT OK conditions, including date and nature or any repairs or other remedial actions:			

Sandia National Laboratory
Thermal Treatment Facility
NMED Control Copy

NMHWMR-7, Pt.V,§264.15(b)(3).

1.1.2 Frequency of Inspections

Items listed in Table 5-1 are inspected weekly. The frequency is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or Frequency of Inspectionsmalfunction, or any operator error, goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, are inspected daily when in use, consistent with the requirements of NMHWMR-7, Pt. V, §264.15(b)(4). Also, when in use, the TTF is inspected daily, within safety limits. An inspection form similar to the one shown in Table 5-1 is used.

1.1.3 Remedial Action

Remedial ActionIf an inspection of the TTF reveals that a nonemergency problem has developed, remedial action including repairs, maintenance, and replacement will be completed as soon as practical to preclude further damage and reduce the need for emergency repairs. If safety and emergency equipment, security devices, or operational equipment are found to be damaged, incomplete, or nonoperational upon inspection, Department 7042 personnel will ensure that repairs/replacements are made as soon as practicable. If a hazard appears imminent or if a hazardous situation already exists, operation of the TTF will stop, and remedial action will be initiated immediately. Any remedial action taken pursuant to an inspection will be noted on the inspection schedule.

1.2 Specific Process Inspection Requirements

NMHWMR-7, Pt. V, §264.15(b)(4), requires inspections of specific portions of a facility, rather than the general facility. These include container storage areas, tank systems, waste piles, surface impoundments, incinerators, landfills, land treatment facilities, drip pads, and miscellaneous units. Hazardous waste at the TTF is managed in a miscellaneous unit.

1.3 Miscellaneous Unit Inspection

NMHWMR-7, Pt. V, §264.602, requires that inspections required in NMHWMR-7, Pt. V, §§264.15 and 264.33, as well as any additional requirements needed to protect human health and the environment, be met. The requirements of NMHWMR-7, Pt. V, §§264.15 and 264.33, are discussed in Section 5.2, along with how the TTF complies with those requirements for standard types of inspections.

ATTACHMENT 4

PERSONNEL TRAINING

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 Personnel Training

This chapter describes the personnel training program for the TTF in accordance with NMHWMR-7, Pt. V, §264.16, and NMHWMR-7, Pt. IX, §270.14.

The primary objective of the TTF training program is to prepare personnel to operate the TTF in a safe and environmentally sound manner. To achieve this objective, the program provides all employees with training relevant to their positions. Every TTF employee completes initial training within 6 months of employment or assignment to the TTF. TTF personnel are given, at a minimum, a basic understanding of the regulatory requirements in hazardous waste management and emergency procedures. TTF employees receive additional classroom and on-the-job training designed specifically to teach them how to perform their duties safely and in conformance with regulatory requirements. TTF personnel receive the required training before being allowed to work unsupervised.

This chapter describes the introductory and continuing training provided to personnel at the TTF (i.e., Project Leader and TTF Operator) whose actions or failure to act could result in a spill or release or the immediate threat of a spill or release of hazardous waste. These personnel are directly involved with hazardous waste management at the TTF. Their training allows them to operate the facility safely and in compliance with hazardous waste management regulations.

1.1 Outline of the Training Program

Employee training at the TTF is the overall responsibility of TTF Project Leader. All training is conducted by qualified instructors certified by the Environmental, Safety and Health (ES&H) Training Department. Training includes formal classroom sessions, on-the-job training, and review of written procedures and plans. A summary of the training of TTF personnel is shown in Table 4-1. Training Course Outlines for the TTF are found in Attachment 4B. TTF personnel are trained in the following areas:

- Occupational Safety and Health Administration employee rights
- RCRA hazardous waste management facility requirements
- TTF operating procedures, emergency response, and permitted facility requirements

Training records for all facility personnel are kept at the Department 7057 Environmental Programs Record Center. Training

records include descriptions, dates, and attendees of each training session.

TABLE 4-1

Summary of Training for Thermal Treatment Facility Personnel			
Title	Length	Frequency	Personnel
Explosives Personnel Safety Course	16 to 24 hours	Initial	Thermal Treatment Facility Operators
Emergency Procedures and Contingency Plan	Variable*	Annual	All
Operating Procedures of the Thermal Treatment Facility	Variable*	Annual	All
Resource Conservation and Recovery Act Training	8 to 24 hours	Initial	Project Leader

* Length of annual trainings total a minimum of eight hours.

A minimum of 24 hours of training of new facility personnel is conducted within six months after the date of employment or assignment to the TTF and until the training is completed, the new personnel work only under the supervision by fully trained personnel. All facility personnel participate annually in a review of training that totals a minimum of eight hours. Visitors, temporary personnel, and contractors are trained commensurate with the nature of their visit or duties.

1.1.1 Title/Job Description

Table 7-1 provides a list of job titles and training requirements for those positions at the TTF that involve hazardous waste management. Job descriptions are provided in Attachment 4A. In accordance with NMHWMR-7, Pt. V, §264.16(d)(2), the job descriptions include hazardous and waste management job duties, required skills, qualifications, and experience, as well as educational requirements.

A file of all hazardous waste management job titles and job descriptions and a list of employees for each job title are maintained at SNL/NM by the Department 7500 Environmental Operations Record Center.

1.1.2 Training Content, Frequency, and Techniques

The TTF training program includes a comprehensive combination of classroom training courses and on-the-job training. Each training session is carefully developed to ensure relevancy of the course objectives and to ensure its support of the goal of safe and environmentally sound operations at the TTF. The training content will include, at a minimum, the topics shown in appendix 4D. Course outlines are maintained by the ES&H Training Department.

1.1.3 Training Director

The Training Director directs the training program and is responsible for establishing training requirements for TTF personnel. The Training Director is required to be knowledgeable of the applicable hazardous waste regulations and specific process employed at the TTF. The Training Director is the TTF Project Leader.

1.1.4 Relevance of Training to Job Position

The TTF training program provides employees with training relevant to their positions as shown in Table 7-1. The Project Leader receives hazardous waste management training relevant to his position. TTF personnel receive training in hazardous waste management, TTF operations, and explosive handling.

1.2 Implementation of Training Program

The TTF training program has been implemented to ensure that all hazardous waste management personnel employed at the TTF receive the training indicated in Table 7-1 or equivalent course work. All personnel are trained on the RCRA Contingency Plan through their basic training. All recently hired employees and new hires receive the indicated training within six months of their date of hire or their transfer to a new position. Personnel do not work in unsupervised positions until they successfully complete the indicated training requirements. All hazardous waste management personnel attend annual refresher courses that review the initial training received.

Records relating to the TTF training program for hazardous waste management and emergency response personnel are maintained by the Department 7057 Environmental Programs Record Center located at SNL/NM. These records include the job titles and job descriptions for all hazardous waste management positions; a roster of employees in those positions; a list of courses

required for each position; course descriptions; documentation that each employee has received and completed appropriate training; and all of the backup information regarding certification, qualification, and examination. Training records of current personnel are kept until closure of the TTF. Records of former employees are kept for at least three years from the date the employee last worked at the facility.

The training plan and training records for the previous year are maintained at the TTF.

ATTACHMENT 4A

HAZARDOUS WASTE MANAGEMENT JOB DESCRIPTIONS

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

Thermal Treatment Facility Hazardous Waste Management Job Description.

Job Title: Project Leader

Hazardous Waste Management Duties:

- Provides administrative and operational control of the Thermal Treatment Facility
- Coordinates compliance with contingency plan and permit requirements.
- Directs spill control, containment, and cleanup activities for hazardous reactive waste.

Required Skills, Experience, and Qualifications:

- The requisit level of technical experience for this position will be determined by the department manager (e.g., B.S. degree, or equivalent, in an environmental or physical science from an acredited college or university).

Type/Amount of Introductory/Continuing Training:

- See Table 4-1

Thermal Treatment Facility Hazardous Waste Management Job Description

Job Title: Facility Operator

Hazardous Waste Management Duties:

- Performs thermal treatment facilities duties
- Assists the project leader

Required Skills, Experience, and Qualifications:

- The requisit level of education for this position will be determined by the department manager (e.g. B.S. or B.A. degree, or equivalent, in an environmental or physical science from an acredited college or university).

Type/Amount of Introductory/Continuing Training:

- See Table 4-1

ATTACHMENT 4B

TRAINING COURSE OUTLINES

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

THERMAL TREATMENT FACILITY TRAINING OUTLINE

Topics to be covered will include, at a minimum, the following:

Emergency Procedures and the TTF Contingency Plan

Contingency Plan Implementation
Personal Protective Equipment
Procedures for Using Emergency Equipment
Procedures for Shutdown of Operations
Response(s) to Emergencies
Emergency Coordinator(s)
Evacuation Route and Procedures
Postemergency Procedures

Operating Procedures of the TTF

Overview of Written Operating Procedures
Overview of Waste Analysis Plan
Safety Practices
Security, Site Entry, and Site Control
Facility Operations
Facility Equipment and Structures
Procedure to Prevent the Reaction of Reactive Waste
Permit Requirements for the TTF

RCRA Training

Overview of Hazardous Waste Management Regulations Applicable to the TTF

ATTACHMENT 5

PROCEDURES FOR HANDLING IGNITABLE OR REACTIVE WASTES

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 Prevention of Reaction of Ignitable, Reactive, and Incompatible Waste

NMHWMR-7, Pt. IX, § 270.14(b)(9), requires a description of precautions taken to prevent accidental ignition or reaction of ignitable, reactive, or incompatible hazardous waste as required to demonstrate compliance with NMHWMR-7, Pt. IX, 270.15(c), and NMHWMR-7, Pt. V, § 264.17.

Measures are taken to isolate the waste from sources of ignition and from incompatible materials, as noted below.

1.1 Engineering Precautions to Prevent Reactions

Wastes are never stored at the TTF prior to treatment. Reactive explosives and energetic waste (being sensitive to impact, heat, shock, and light), are immediately treated upon transport to the TTF. To meet the requirements of NMHWMR-7, Pt.V, § 264.176, the nearest perimeter fence of SNL/NM TA-III is greater than 50 feet (15 meters) away. The reactive waste is protected from open flames by disabling the gas burner system during loading of the TTF, which is done by removing the only key from the lock on the control console in Building 6715. Thus the gas burner system is controlled by the operator who is loading the TTF while the TTF door is open. The door is also operable from the control console which reduces the chance of opening the door for loading or unloading without disabling the gas burner system. The gas burner system is reactivated at the control console only after an area check for personnel and a public address announcement is made that the TTF will begin operations. Smoking, matches, and lighters are not permitted anywhere in or near the TTF at any time.

The grounds and berms near the TTF are cleared of weeds and brush. This helps to prevent brush fires near the operation of the TTF.

1.2 General Precautions for Handling Reactive Waste

Copper is incompatible with an explosive slurry of SASN; therefore, no exposed copper is allowed when the explosive SASN is present. No other materials that would produce undesirable reactions with the hazardous waste, such as explosion, toxic fumes, or structural damage, are located at the TTF.

1.3 Waste Management Operations

Waste to be treated is transferred to the TTF Building 6715 Complex on the day of the planned treatment event. The containers of waste are transported through the east gate of the

Building 6716 Complex to a location approximately 50 feet (15 meters) north of the TTF. Waste is manually unloaded from the transport vehicle by the transporter and placed just outside the fence at the bottom of the steps on the north side of the TTF. Outer waste containers remain closed except to remove the waste and place it in the burn pan. All waste to be treated is manually place or poured inside the burn pan by qualified explosive waste handlers, except for SASN contaminated liquid, which is pumped into the burn pan from inside Building 6715 by qualified TTF personnel. The door to the burn cage is remotely closed from the control console on Building 6715, and the treatment process started. Three remotely operated propane gas jets, one positioned to heat the inside of the burn pan and two positioned to heat the bottom of the burn pan. Upon heating, the waste burns and decomposes (i.e., oxidizes to nonhazardous gases and carbon). The burn may be repeated several times to assure complete destruction of explosive waste.

The treated contents of the burn pan are managed as hazardous waste. A CWDR is submitted by the TTF Personnel to Department 7042. Department 7042 arranges for the transport of the treated and containerized contents of the burn pan to the HWMF.

1.4 Waste Handling Equipment

A peristaltic pump is used to transfer waste liquid contaminated with SASN from building 6715 into the burn pan and is the only waste handling equipment used at the TTF. Outer containers used to transport reactive explosive wastes are hand carried to the TTF. The inner packages are manually removed from the outer containers by trained explosive handlers and then manually placed or poured into the TTF burn pan. The waste is not handled after placement into the burn pan or before treatment. TTF treatment operations (i.e., waste ignition) are remotely performed from the control console in Building 6715. After treatment is complete, the ash in the burn pan is manually unloaded (using plastic scoops), placed in containers, and transported to the HWMF by trained hazardous waste handlers.

1.5 Containers

The containers used to hold explosive hazardous waste qualify as "containers" in accordance with NMHWMR-7, Pt. I, § 260.10: that is, they are "portable devises in which a material is stored, transported, disposed of, or otherwise handled." Solid materials to be treated at the TTF are contained in discrete inner packages. Several small, inner packages may be transported to the TTF within approved outer

containers. To ensure that waste is not spilled on the concrete pad, the integrity of the inner waste containers is not compromised at the TTF. Liquid waste containers are not opened until they are on the steel-lined concrete burn pad and the contents are to be poured into the burn pan.

1.6 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately 20.8 gallons (78.9 liters). The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is 20.8 gallons (78.9 liters). Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

CONTINGENCY PLAN

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7577
ALBUQUERQUE, NEW MEXICO

JULY 1995

TABLE OF CONTENTS

	PAGE
LIST OF FIGURES	2
1.0 INTRODUCTION	3
1.1 DISTRIBUTION	3
1.2 PURPOSE	3
1.3 FACILITY DESCRIPTION	4
1.4 THERMAL TREATMENT FACILITY	4
1.5 TTF WASTES	5
2.0 FACILITY EMERGENCY COORDINATOR	7
3.0 TTF RESPONSE PROCEDURES	8
3.1 SPILLS	10
3.2 PERSONNEL EXPOSURE	11
3.3 POWER FAILURE	12
3.4 UNPLANNED FIRE AND/OR EXPLOSION	12
3.5 NATURAL EMERGENCIES	13
3.6 EVACUATION	13
3.6.1 Evacuation Procedure	13
3.6.2 Evacuation Routes	13
4.0 EMERGENCY EQUIPMENT	14
4.1 THERMAL TREATMENT FACILITY	14
4.2 SNL/NM EMERGENCY EQUIPMENT	16
5.0 EMERGENCY RECOVERY PROCEDURES	17
5.1 POSTEMERGENCY INSPECTIONS	17
5.2 POSTEMERGENCY REPORTS	18
5.3 EMERGENCY RESPONSE EVALUATION	19

LIST OF FIGURES

FIGURE NO.	TITLE
1	Thermal Treatment Facility

1.0 INTRODUCTION

Sandia National Laboratories, New Mexico (SNL/NM) has prepared this Resource Conservation and Recovery Act (RCRA) Contingency Plan for the Thermal Treatment Facility (TTF) in compliance with New Mexico Hazardous Waste Management Regulations-7 (NMHWMR-7), Pt. IX, §270.14(b)(7) and NMHWMR-7, Pt. V., Subpart D, as applicable. This plan consists of emergency procedures specific to the TTF. This Contingency Plan supersedes all previous revisions.

Independent of this Plan, SNL/NM has also prepared SNL/NM Emergency Plans and Procedures. The SNL Emergency Plans and Procedures, incorporated in this Plan by reference, describe the corporate emergency response for all SNL/NM facilities. The SNL Emergency Plans and Procedures also describe all of the written agreements between SNL/NM and local emergency response teams such as the Kirtland Air Force Base (KAFB) Fire Department, City of Albuquerque, and nearby hospitals. The SNL Emergency Plans and Procedures are maintained and implemented by the SNL/NM Emergency Management Department 7443.

1.1 DISTRIBUTION

To assure proper implementation in the event of any emergency, this Contingency Plan must be studied and understood by all personnel involved in the handling, storage, or treatment of hazardous waste at the TTF and by all personnel required to respond to emergency situations involving hazardous waste.

Copies of this RCRA Contingency Plan will be on file at the following locations:

- Thermal Treatment Facility (Building 6715)
- Headquarters Communications Center, Department 7443, SNL/NM
- Chemical Waste Management Department, 7042, SNL/NM
- New Mexico Environment Department
- Department of Energy, Kirtland Area Office, Environmental, Safety and Health (ES&H) Compliance Branch (Albuquerque)

1.2 PURPOSE

The purpose of this document is to define responsibilities, provide guidance for coordination of activities, and minimize hazards to human health or to the environment from fires,

explosions, or any unplanned sudden or nonsudden release of hazardous waste. The provisions of this plan will be carried out immediately whenever there is a fire, explosion, spill or release of hazardous waste constituents that could threaten human health or the environment outside the TTF.

Minor incidents, those which can be controlled with TTF resources and do not threaten human health or the environment outside the TTF boundaries, will be managed by trained TTF personnel. After control of the situation, the Chemical Waste Management Department 7042 will be notified by the Facility Emergency Coordinator (FEC)(Section 2.0). Response to minor incidents is not considered activation of this Contingency Plan. In the case of emergencies (e.g., large spills, fire, explosion, aircraft incidents, or natural disasters), the FEC will activate this Contingency Plan and notify the SNL/NM Headquarters Communications Center (HCC) at 144 or 844-0081. The HCC assumes primary responsibility for response coordination.

1.3 FACILITY DESCRIPTION

SNL/NM is a multidisciplinary laboratory engaged in the research and development of weapons and alternative energy sources. SNL/NM falls under Standard Industrial Classification (SIC) Code Number 9711, National Defense Organizations.

SNL/NM is located in Bernalillo County, New Mexico, adjacent to the southeastern boundary of Albuquerque. SNL/NM occupies an area of about 2,810 acres located in the eastern portion of the 52,233-acre KAFB. SNL/NM consists of five technical areas, designated Tech Areas I through V, as well as remote test areas.

1.4 THERMAL TREATMENT FACILITY

The TTF is used to thermally treat (i.e., burn) small quantities of waste explosive substances, waste liquids (e.g., water, solvents, etc.) contaminated with explosive substances, and waste items (e.g. rags, wipes, swaps, etc.) contaminated with explosive substances.

The TTF is located in the northeast corner of SNL/NM TA-III, just south of Building 6715. The TTF consists of a square burn pan, 29-1/4 inches on each side and 5 1/2 inches deep, constructed of 3/8-inch steel. A remotely operated metal lid can be raised to open or lowered to cover the burn pan. The burn pan is enclosed by a grated metal (i.e., open to the air) cage, approximately 4 feet on each side and 8 feet tall. Access to the burn pan is provided by a door on the north side of the burn cage which is operated remotely from controls inside Building 6715. The burn cage sits in the center of a steel lined concrete pad approximately 13 feet on a side with a 4 inch high curb at the

perimeter. Any water (from precipitation) which collects inside the lined concrete pad is drained through a filter, into a settling basin and then into a 157-gallon holding tank. Water inside the holding tank is discharged to the TA-III sanitary sewer unless it is contaminated with any waste explosives or solvents. The concrete pad is surrounded on the west, south, and east sides by a earthen berm, approximately 8 feet tall. An 8-foot-high chain-link security fence surrounds the entire TTF. Three gates, located on the north side of the fence, provide access to the TTF.

Waste to be treated at the TTF is transferred to the facility on the day of the planned treatment event. All waste to be treated is placed inside the burn pan by qualified waste handlers. All other treatment operations are performed remotely from controls inside Building 6715 by qualified TTF personnel. The door to the burn cage is closed and the treatment process started. Three remotely operated propane gas jets, one positioned to heat the inside of the burn pan and two positioned to heat the bottom of the burn pan, are ignited. Upon heating, the waste burns and decomposes (i.e., oxidizes to nonhazardous gases and carbon). The burn may be repeated several times to assure complete destruction of the explosive waste.

Waste is not stored at the TTF and is only present during a planned treatment event. However, if for some reason a treatment event is aborted, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely) and the waste will remain there until it is possible to perform the treatment or safely remove the waste. If waste is stored at the TTF all SNL/NM and RCRA requirements for storage of explosive/hazardous waste will be met.

1.5 TTF WASTES

The TTF treats reactive wastes by open burning. The reactive waste is in the form of waste explosive substances (e.g., powders, granules, etc.), waste items (e.g., rags, wipes, swaps, etc.) contaminated with explosive substances, and waste liquids (e.g., water, solvents, etc.) contaminated with explosive substances. Except for silver acetylide/silver nitrate no primary, fragment producing, confined or mass detonating explosives will be treated in the TTF. Some explosives will be wet with water or a solvent to facilitate safe handling and transportation. In some cases ignitable liquids (e.g., isopropyl alcohol) will be added to the waste inside the burn pan to facilitate burning of the waste.

Solid wastes contaminated with explosives which may be treated at the TTF include paper towels, rags, wipes, tissues, swabs, cloth

or paper filters and filter elements, etc. It may be necessary to saturate the solid wastes with water before they are placed inside the TTF burn pan.

Liquid wastes contaminated with explosives which may be treated in the TTF include water, alcohols, and solvents. Recovery/recycling of the liquids would present a serious hazard if any explosive contaminant were present. Substitution of nonhazardous solvents (e.g., water) for hazardous solvents (e.g., acetone) has been practiced whenever possible; however, the use of hazardous solvents is necessary for some applications (e.g., the formulation of SASN).

Nonhalogenated Organic Compounds—Waste acetone (F003) and methyl ethyl ketone (F005) contaminated with explosives are the most prevalent nonhalogenated organic compound to be treated at the TTF. These solvents are used in the handling of explosive compounds during research and development operations at SNL/NM.

Ignitable Liquids—Isopropyl alcohol (D001) is often used in the handling of explosive compounds during research and development operations at SNL/NM. In some cases it will be used to facilitate treatment of explosive waste.

Toxicity Characteristic Metal—Silver (D011) is present in SASN and is the only toxicity characteristic metal present in any of the explosive materials to be treated at the TTF.

Reactive Compounds—Reactive (i.e., explosive) substances (D003) are treated at the TTF, such as those listed in Section 2.3.1 of this permit application, and include high explosives, propellants, and pyrotechnics. With the exception of SASN, primary explosive compounds will not be treated at the TTF.

Operations Generating Explosive Hazardous Waste
All wastes to be treated at the TTF are generated at SNL/NM. These wastes are generated as a result of specific processes and activities that are well defined and well controlled, enabling SNL/NM to characterize waste streams on the basis of their KOP and the raw materials used. Prior to accepting waste for treatment at the TTF a detailed chemical and physical characterization of the waste must be performed is accordance with the requirements of NMHWMR-7, Pt. V, §264.13(a)(1). The characterization of hazardous waste is accomplished by the application of KOP. KOP is defined in NMHWMR-7, Pt. V, §264.13 (c)(2) as waste identification by applying knowledge of the hazardous characteristics of the waste based on the materials or processes used.

In addition, NMHWMR-7, Pt. V, §264.13 (c)(2) specifies that the chemical and physical analysis of a representative sample of the waste may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. To ensure detailed and accurate waste characterization exists involves the steps outlined in Section 2.7, Waste Screening and Verification.

The principle products of decomposition of the explosive substances and explosive contaminated items and liquids are ash (carbon) possibly contaminated with silver and the following gases: nitrogen, water vapor, carbon dioxide, carbon monoxide, sulfur dioxide, diatomic oxygen and traces of oxides of nitrogen. The maximum quantity of waste treated during any single burn event will be twenty pounds. After each burn event the contents of the burn pan will be collected, contained, labeled, stored, and disposed of as hazardous waste.

2.0 FACILITY EMERGENCY COORDINATOR

At all times, a FEC must be on site or on call (NMHWMR-7, Pt. V., Subpart D). In the event that the primary FEC is not on site or available, an alternate FEC must be contacted.

FACILITY EMERGENCY COORDINATOR		OFFICE PHONE	HOME PHONE
Primary:	David Castillo	848-0482	899-1956
Home Address:	5405 Arabian NW	238-1181 (cellular)	
	Albuquerque, NM 87120	845-0142/4004 (pager)	
Office Address:	P.O. Box 5800		
	Department 7577		
	Albuquerque, NM 87185		
First Alternate:	Paul Romero	848-0481	864-9756
Home Address:	614 N. 5th Street	250-5802 (cellular)	
	Belen, NM 87002	845-0142/4012 (pager)	
Office Address:	P.O. Box 5800		
	Department 7572		
	Albuquerque, NM 87185		

When the FEC is notified of an incident, he must first determine if procedures for minor incidents or for emergencies should be implemented. In the case of minor incidents, the FEC will coordinate the response. In the case of emergencies, the FEC will relinquish control to the On-Scene Commander (OSC) assigned by the HCC Emergency Response Director when he arrives to handle the emergency; however, the FEC will remain on hand to provide technical guidance and relevant information about the TTF.

The FEC will ensure that personnel assigned to the TTF are trained in the location and use of safety hand-held deluge shower/eyewash, fire extinguishers, and emergency protective clothing, in emergency procedures, and in evacuation procedures.

During minor incidents at the TTF, or until the OSC arrives, the FEC has three primary responsibilities:

1. Assess the situation. By observing the scene, interviewing personnel, and/or reviewing records, the FEC gathers information relevant to the response, such as the type of event, quantity and type of released material and actual or potential hazards to human health or the environment.

2. Protect personnel. The FEC should take reasonable measures to ensure the safety of personnel, such as accounting for TTF personnel, attending to injuries, or coordinating the evacuation of TTF personnel, if necessary. If evacuation is indicated for other personnel, the OSC must be informed.

3. Contain or mitigate the hazards. The FEC should take reasonable measures to ensure that fires, explosions or releases do not occur, recur, or spread. For example, released explosive material should be kept saturated.

After both minor incidents and emergencies, the FEC must ensure that the facility and equipment are cleaned, waste is properly handled and disposed, and the TTF is safe to resume operation. Before operations are resumed, the FEC must contact Chemical Waste Management Department 7042, who will inform the appropriate agencies if necessary. See Emergency Recovery Procedures, Section 5.0. If the Contingency Plan and SNL/NM Response Resources were activated, the FEC is also responsible for preparing postemergency reports.

3.0 TTF RESPONSE PROCEDURES

The first person to become aware of an incident, during normal working hours, shall contact the FEC. The FEC will then assess the situation and determine the scale of the incident.

Only personnel trained in incident response activities will approach or handle unplanned situations. All other personnel will leave the vicinity of the unplanned conditions. Under no circumstances will the TTF be entered or approached by personnel unless:

- Waste is not present in the facility
- Waste has been rendered safe by complete detonation
- Waste has been stabilized by saturating it with water.

In the event that the FEC determines an incident to be minor, a person will be assigned to standby at a safely located telephone. At the first indication of incident escalation, the standby person will be instructed to notify the HCC at 144 or 844-0081. For the following reasons, most unplanned incidents involving the TTF will initially be considered minor incidents:

- Waste will only be present at the TTF on the day of planned treatment events and only in small quantities (i.e., less than 20 lbs.)
- The TTF is remotely isolated and fenced to prevent casual access
- There is very limited contact by the facility personnel with the hazardous waste
- The waste to be treated is stable when saturated with water
- Treatment operations are remotely controlled.

If the FEC determines that an emergency situation exists (i.e., releases extending outside TTF boundaries, fire, explosion, aircraft incidents, or natural disasters) or that human health, or the environment outside the TTF area is threatened, he will immediately notify the HCC at 144 or 844-0081 and activate this Contingency Plan. The HCC then assumes primary responsibility for emergency response coordination. The HCC will notify the National Response Center (1-800-424-8802) with the details of the emergency.

The HCC operates within the SNL/NM Incident Command System (ICS)—a management system used to coordinate the efforts of all SNL/NM response teams and capabilities and other response teams, such as KAFB Fire Department, as needed. The ICS is a system which is implemented at the time an incident occurs, expanded to control the incident as needs arise, and which remains in effect until the need for management no longer exists. The HCC, when activated, is manned by the Emergency Response Director and a staff consisting of DOE personnel; SNL/NM management; KAFB staff; and representatives from various response groups. Under the HCC,

the OSC is responsible for management of operations at the emergency site. The OSC coordinates operations with the four HCC sections: Operations, Logistics, Safety, and Planning.

The Operations Section identifies and carries out the actions necessary at the site to contain the emergency.

The Logistics Section identifies, acquires, deploys, and mobilizes the supplies, material, and equipment needed to deal with an emergency. Under the Logistics Section, Facilities Engineering has teams capable of responding to incidents that require knowledge of buildings and utilities, use of heavy equipment, and transportation of material, equipment, or personnel.

The Safety Section is responsible for ensuring that Medical and ES&H resources are available as needed. The Medical organization has established a Medical emergency response team, who responds to all medical emergencies during operational hours. The type of response to each emergency is determined through information received about the emergency. ES&H is primarily responsible for responding to releases of hazardous or toxic materials at facilities located within SNL/NM and for providing consulting services associated with personnel safety and health.

The Planning Section is responsible for collection of data (resources available, weather, field observations, etc.).

3.1 SPILLS

When dealing with any spill at the TTF, the following should be adhered to:

- The first priority in a spill is personnel protection--do not attempt to do anything to a spill until proper personal protective equipment has been donned and exercise great caution in handling a spill.
- The second priority in a spill at this unit is to keep the released material saturated. The waste treated at the TTF can be sensitive when dry, but stable when in water.

If a spill occurs while transferring waste:

1. Immediately discontinue the transfer of waste.
2. Notify the FEC.
3. As directed by the FEC:

a. Don personal protective equipment appropriate to prevent exposure to the material.

b. Remove contaminated material from the ground surface. Make sure the material remains saturated at all times.

c. Remove contaminated soil, if any.

d. Transfer all contaminated material to the TTF for treatment. This includes water used in decontaminating remedial equipment.

4. Note on a weekly log the details of the spill and cleanup.

3.2 PERSONNEL EXPOSURE

In the event of chemical material in the eye or on the skin:

1. Notify the FEC.

2. Wash the eye(s) or skin with the permanent eye wash station for at least 15 minutes.

3. Hold open the eyelids during washing.

4. After the wash, quickly transport the injured person to SNL/NM Occupational Medicine for evaluation.

5. If possible, the FEC should ascertain what chemical material was involved in the injury and give the information to SNL/NM Occupational Medicine.

In the event of:

- Irritation of the eyes, breathing passages, or skin,
- Difficulty in breathing,
- Nausea, light-headedness, vertigo, or blurred vision,

personnel will:

1. Notify the FEC.

2. Evacuate and barricade the area to prevent unauthorized entry.

3. Transport the affected person to SNL/NM Occupational Medicine.

4. The FEC should attempt to ascertain what, if any, chemical exposure occurred and what corrective measures are appropriate.

3.3 POWER FAILURE

Three pieces of equipment at the TTF would be affected by a power failure: the burners, the motor driven burn cage door, and the motor driven burn pad lid. All other equipment is manually operated. In the event of a power failure:

1. Before any waste has been placed inside the burn pan, discontinue operations until power is restored.

2. After waste has been placed inside the burn pan, but before the burners have been ignited; remove the waste if it is deemed safe and feasible and return it to its original container(s). If it is not possible to remove the waste, manually lower the burn pan lid and wait until power is restored to proceed with treatment. If power is not restored in time to perform the burn, secure the area, allow the waste to remain in the burn pan, and notify security personnel of the presence of the waste and potential hazards.

3. After the burners have been ignited and treatment has started, do not enter the TTF. Complete the treatment as soon as power is restored. If power is not restored in time to complete the burn, secure the area, manually lower the burn pan lid if it is deemed safe, allow the waste to remain in the burn pan, and notify security personnel of the presence of the waste and potential hazards. The burn should be completed as soon as possible.

3.4 UNPLANNED FIRE AND/OR EXPLOSION

Personnel operating the TTF have developed operating practices designed to eliminate the risk of fire and explosions. Unplanned detonation or combustion of the waste renders it harmless. In the unlikely event that an unplanned fire or explosion threatens areas outside the TTF boundaries, the FEC will immediately notify the HCC at 144 or 844-0081. This Contingency Plan and SNL/NM Response Resources will be activated in this situation.

3.5 NATURAL EMERGENCIES

After any natural emergency (earthquake, flood, lightning strike, etc.) the FEC will inspect the facility for any signs of damage, leakage, and land movement and initiate any necessary corrective measures, however temporary, to rectify potential or real problems. Inspection findings and corrective measures will be logged.

3.6 EVACUATION

The FEC will initially make the determination to evacuate the TTF. Personnel will evacuate the facility upon the voice command over the intercom of "evacuate the area," or upon the sounding of the fire alarm from Building 6715.

3.6.1 Evacuation Procedure

The following procedure will allow for a safe, coordinated evacuation:

1. When an evacuation is announced, stop work.
2. Do not remain in affected area except to assist injured personnel.
3. Proceed through the east gate of the facility fence approximately one-quarter mile to the northeast guard gate of TA-III.
4. Report to designated assembly area at the guard gate of TA-III for roll call taken by the FEC or his assignee.
5. Be continually cognizant of wind directions (stay upwind) and emergency equipment.
6. Do not reenter area until the FEC (limited incidents) or SNL/NM OSC (emergencies) determines that all is safe and secure.

3.6.2 Evacuation Routes

A map of the evacuation route is posted at the entrance to Building 6715. The FEC is responsible for ensuring that all new employees and site visitors are familiar with evacuation procedures and routes. A map showing evacuation routes is provided in Figure 1.

4.0 EMRGENCY EQUIPMENT

4.1 THERMAL TREATMENT FACILITY

Though emergency equipment is not dedicated to the TTF, it can be obtained from Building 6715 adjacent to the facility.

The following is a list of emergency equipment available at Building 6715, adjacent to the TTF:

Permanent Eyewash/Hand-Held Deluge Shower: Located in Building 6715 by fume hood

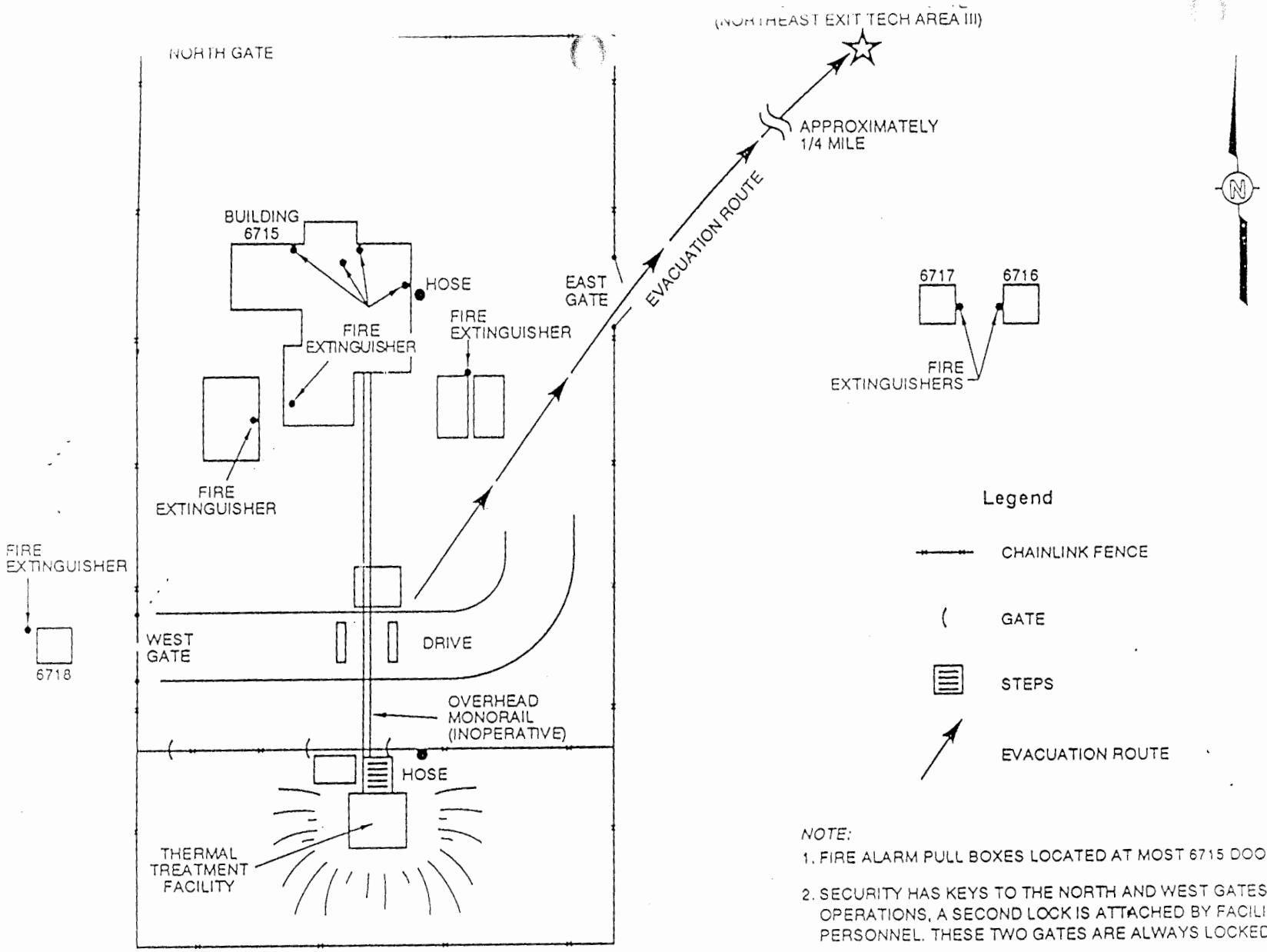
Fire extinguishers: Portable

Fire alarm system

First-aid kit: Bandages, gauze, instruction booklet, antiseptic, scissors

Face-shields: Chemical splash chemical resistant face-shields, at least two each

Portable lights: Battery-operated flashlights.



SITE SKETCH NOT TO SCALE

NOTE:

1. FIRE ALARM PULL BOXES LOCATED AT MOST 6715 DOORS
2. SECURITY HAS KEYS TO THE NORTH AND WEST GATES. DURING OPERATIONS, A SECOND LOCK IS ATTACHED BY FACILITY PERSONNEL. THESE TWO GATES ARE ALWAYS LOCKED.

Figure 1
Thermal Treatment Facility

4.2 SNL/NM EMERGENCY EQUIPMENT

Equipment available for use at SNL/NM and the locations of this equipment are provided below:

ITEM OR EQUIPMENT	LOCATION/TELEPHONE
Emergency Vehicles	
Emergency Response Vehicle: Mobile Command Post equipped with communications equipment and SCBAs.	SNL/NM HCC—Call 911 or 844-0911
Ambulances	SNL/NM HCC—Call 911 or 844-0911
Security Vehicles: Vans and trucks equipped with communications equipment and utilized for transportation of personnel and equipment.	SNL/NM HCC—Call 911 or 844-0911
Fire Trucks: Fire-fighting vehicles outfitted with equipment for fighting fires.	SNL/NM HCC—Call 911 or 844-0911 KAFB—Call 117 or 844-0903
Helicopter: Rotary-wing aircraft for transportation of personnel to or from site.	SNL/NM HCC—Call 911 or 844-0911
Medical Supplies	
Stretchers/Stokes Litter: Equipment for movement of injured personnel. Stokes Litter will immobilize personnel so they may be moved vertically.	SNL/NM HCC-Call 911 or 844-0911
Blankets: Normal blankets.	SNL/NM HCC—Call 911 or 844-0911
Medical Kits: Emergency first-aid supplies.	SNL/NM HCC—Call 911 or 844-0911
Oxygen: Medical grade oxygen in compressed cylinders equipped for personnel use.	SNL/NM HCC—Call 911 or 844-0911

Safety Supplies

Air Packs: Self-contained breathing apparatus equipped with positive pressure mode for use by personnel entering hazardous atmospheres. Cylinders contain sufficient air for 60 minutes. No fewer than six air-packs are available.	SNL/NM HCC—Call 911 or 844-0911 SNL/NM Industrial Hygiene I, Department 7711—Call 844-3665
Monitoring instruments	SNL/NM Industrial Hygiene I, Department 7711—Call 844-3665

Transportation

Tractor-trailer combinations, 18 wheelers, 40-foot trailers, 40,000-pound capacity (7)	SNL/NM HCC—Call 911 or 844-0911
2-ton flat-bed trucks with sideboards (6)	
1-ton flat-bed trucks with sideboards (7)	
1.5-ton enclosed panel vans (4)	
Passenger vehicles including sedans and vans (10)	
Passenger buses (4)	

5.0 EMERGENCY RECOVERY PROCEDURES

5.1 POSTEMERGENCY INSPECTIONS

The following postemergency inspections will be done:

1. After any emergency, the FEC will inspect the premises for leaks or ruptures of equipment. He will ensure that all spill-related material is handled or disposed properly. The results of the inspection will be recorded on an inspection log.

2. Emergency response equipment must be carefully inspected and the equipment decontaminated, replaced or refurbished

if needed. Fire extinguishers must be checked for adequate charge. Personal protective equipment must be checked for contamination. Remedial equipment must be inspected for contamination and proper operation. The eyewash must be checked for proper water pressure.

Within 24 hours of an emergency, fire extinguishers should be replaced through Facilities Fire Alarm Protection Systems 7811-3 and personal protective equipment decontaminated, repaired or replaced through Industrial Hygiene I, Department 7711.

Within three days of an emergency, other equipment and facilities should be decontaminated by cleaning with a solvent appropriate to the waste contamination. The spent solvent should be collected and treated as a hazardous waste. All appropriate personal protective equipment must be worn during decontamination procedures.

Within 30 days of an emergency, other equipment should be repaired or replaced.

5.2 POSTEMERGENCY REPORTS

The following postemergency reports will be made:

1. A verbal report of any incident must be promptly reported to the Supervisor or representative of the Chemical Waste Management Department 7042 if he was not informed of the incident during its occurrence. The Emergency Management Department 7435 will also be notified of non-emergencies at 844-6515 by either the FEC or Department 7042 personnel.

2. When this Contingency Plan is activated, a written emergency incident report will be prepared jointly by the FEC and Department 7042 and forwarded to the DOE within three working days. The written report will include at a minimum,

   - Name, address, and telephone number of the owner of SNL/NM
   - Name, address, and telephone number of the TTF
   - Date, time, and type of emergency
   - Name and quantity of material involved
   - Extent of injuries

- Assessment of actual or potential hazards to human health or the environment

- Estimated quantity and disposition of recovered material.

3. Before Operations are resumed at the TTF, the NMED will be notified that the TTF is in compliance with 40 CFR § 264.56(h).

The DOE will send the incident report to the U.S. Environmental Protection Agency or the New Mexico Environment Department within 15 days of the occurrence.

5.3 EMERGENCY RESPONSE EVALUATION

The Emergency Management Department 7443 is responsible for annual evaluations of SNL/NM Emergency Plans and Procedures and for the evaluation of the response to each emergency. If these evaluations reveal that changes to the SNL Emergency Plans and Procedures are necessary, they will be amended by Department 7443 and distributed to the appropriate organizations.

This Contingency Plan will be reviewed and, if necessary, amended by TTF personnel and Department 7042 whenever:

1. The facility permit or applicable regulations are revised.

2. The plan fails in an emergency.

3. The facility design, construction, operation, maintenance, or other circumstances change to increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.

4. The list of emergency coordinators and/or phone numbers changes.

5. The list of emergency equipment changes.

ATTACHMENT 6

Superseded July 1995

CONTINGENCY PLAN

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

TABLE OF CONTENTS

	PAGE
LIST OF FIGURES	2
1.0 INTRODUCTION	3
1.1 DISTRIBUTION	3
1.2 PURPOSE	3
1.3 FACILITY DESCRIPTION	4
1.4 THERMAL TREATMENT FACILITY	4
1.5 TTF WASTES	5
2.0 FACILITY EMERGENCY COORDINATOR	7
3.0 TTF RESPONSE PROCEDURES	8
3.1 SPILLS	10
3.2 PERSONNEL EXPOSURE	11
3.3 POWER FAILURE	12
3.4 UNPLANNED FIRE AND/OR EXPLOSION	12
3.5 NATURAL EMERGENCIES	13
3.6 EVACUATION	13
3.6.1 Evacuation Procedure	13
3.6.2 Evacuation Routes	13
4.0 EMERGENCY EQUIPMENT	14
4.1 THERMAL TREATMENT FACILITY	14
4.2 SNL/NM EMERGENCY EQUIPMENT	15
5.0 EMERGENCY RECOVERY PROCEDURES	16
5.1 POSTEMERGENCY INSPECTIONS	16
5.2 POSTEMERGENCY REPORTS	17
5.3 EMERGENCY RESPONSE EVALUATION	18

LIST OF FIGURES

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1	Thermal Treatment Facility

1.0 INTRODUCTION

Sandia National Laboratories, New Mexico (SNL/NM) has prepared this Resource Conservation and Recovery Act (RCRA) Contingency Plan for the Thermal Treatment Facility (TTF) in compliance with New Mexico Hazardous Waste Management Regulations-7 (NMHWMR-7), Pt. IX, §270.14(b)(7) and NMHWMR-7, Pt. V., Subpart D, as applicable. This plan consists of emergency procedures specific to the TTF. This Contingency Plan supersedes all previous revisions.

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1.1 DISTRIBUTION

To assure proper implementation in the event of any emergency, this Contingency Plan must be studied and understood by all personnel involved in the handling, storage, or treatment of hazardous waste at the TTF and by all personnel required to respond to emergency situations involving hazardous waste.

Copies of this RCRA Contingency Plan will be on file at the following locations:

- Thermal Treatment Facility (Building 6715)
- Headquarters Communications Center, Department 7443, SNL/NM
- Chemical Waste Management Department, 7042, SNL/NM
- New Mexico Environment Department
- Department of Energy, Kirtland Area Office, Environmental, Safety and Health (ES&H) Compliance Branch (Albuquerque)

1.2 PURPOSE

The purpose of this document is to define responsibilities, provide guidance for coordination of activities, and minimize hazards to human health or to the environment from fires,

explosions, or any unplanned sudden or nonsudden release of hazardous waste. The provisions of this plan will be carried out immediately whenever there is a fire, explosion, spill or release of hazardous waste constituents that could threaten human health or the environment outside the TTF.

Minor incidents, those which can be controlled with TTF resources and do not threaten human health or the environment outside the TTF boundaries, will be managed by trained TTF personnel. After control of the situation, the Chemical Waste Management Department 7042 will be notified by the Facility Emergency Coordinator (FEC)(Section 2.0). Response to minor incidents is not considered activation of this Contingency Plan. In the case of emergencies (e.g., large spills, fire, explosion, aircraft incidents, or natural disasters), the FEC will activate this Contingency Plan and notify the SNL/NM Headquarters Communications Center (HCC) at 144 or 844-0081. The HCC assumes primary responsibility for response coordination.

1.3 FACILITY DESCRIPTION

SNL/NM is a multidisciplinary laboratory engaged in the research and development of weapons and alternative energy sources. SNL/NM falls under Standard Industrial Classification (SIC) Code Number 9711, National Defense Organizations.

SNL/NM is located in Bernalillo County, New Mexico, adjacent to the southeastern boundary of Albuquerque. SNL/NM occupies an area of about 2,810 acres located in the eastern portion of the 52,233-acre KAFB. SNL/NM consists of five technical areas, designated Tech Areas I through V, as well as remote test areas.

1.4 THERMAL TREATMENT FACILITY

The TTF is used to thermally treat (i.e., burn) small quantities of waste explosive substances, waste liquids (e.g., water, solvents, etc.) contaminated with explosive substances, and waste items (e.g. rags, wipes, swaps, etc.) contaminated with explosive substances.

The TTF is located in the northeast corner of SNL/NM TA-III, just south of Building 6715. The TTF consists of a square burn pan, 29-1/4 inches on each side and 5 1/2 inches deep, constructed of 3/8-inch steel. A remotely operated metal lid can be raised to open or lowered to cover the burn pan. The burn pan is enclosed by a grated metal (i.e., open to the air) cage, approximately 4 feet on each side and 8 feet tall. Access to the burn pan is provided by a door on the north side of the burn cage which is operated remotely from controls inside Building 6715. The burn cage sits in the center of a steel lined concrete pad approximately 13 feet on a side with a 4 inch high curb at the

perimeter. Any water (from precipitation) which collects inside the lined concrete pad is drained through a filter, into a settling basin and then into a 157-gallon holding tank. Water inside the holding tank is discharged to the TA-III sanitary sewer unless it is contaminated with any waste explosives or solvents. The concrete pad is surrounded on the west, south, and east sides by a earthen berm, approximately 8 feet tall. An 8-foot-high chain-link security fence surrounds the entire TTF. Three gates, located on the north side of the fence, provide access to the TTF.

Waste to be treated at the TTF is transferred to the facility on the day of the planned treatment event. All waste to be treated is placed inside the burn pan by qualified waste handlers. All other treatment operations are performed remotely from controls inside Building 6715 by qualified TTF personnel. The door to the burn cage is closed and the treatment process started. Three remotely operated propane gas jets, one positioned to heat the inside of the burn pan and two positioned to heat the bottom of the burn pan, are ignited. Upon heating, the waste burns and decomposes (i.e., oxidizes to nonhazardous gases and carbon). The burn may be repeated several times to assure complete destruction of the explosive waste.

Waste is not stored at the TTF and is only present during a planned treatment event. However, if for some reason a treatment event is aborted, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely) and the waste will remain there until it is possible to perform the treatment or safely remove the waste. If waste is stored at the TTF all SNL/NM and RCRA requirements for storage of explosive/hazardous waste will be met.

1.5 TTF WASTES

The TTF treats reactive wastes by open burning. The reactive waste is in the form of waste explosive substances (e.g., powders, granules, etc.), waste items (e.g., rags, wipes, swaps, etc.) contaminated with explosive substances, and waste liquids (e.g., water, solvents, etc.) contaminated with explosive substances. Except for silver acetylide/silver nitrate no primary, fragment producing, confined or mass detonating explosives will be treated in the TTF. Some explosives will be wet with water or a solvent to facilitate safe handling and transportation. In some cases ignitable liquids (e.g., isopropyl alcohol) will be added to the waste inside the burn pan to facilitate burning of the waste.

Solid wastes contaminated with explosives which may be treated at the TTF include paper towels, rags, wipes, tissues, swabs, cloth

or paper filters and filter elements, etc. It may be necessary to saturate the solid wastes with water before they are placed inside the TTF burn pan.

Liquid wastes contaminated with explosives which may be treated in the TTF include water, alcohols, and solvents. Recovery/recycling of the liquids would present a serious hazard if any explosive contaminant were present. Substitution of nonhazardous solvents (e.g., water) for hazardous solvents (e.g., acetone) has been practiced whenever possible; however, the use of hazardous solvents is necessary for some applications (e.g., the formulation of SASN).

Nonhalogenated Organic Compounds—Waste acetone (F003) and methyl ethyl ketone (F005) contaminated with explosives are the most prevalent nonhalogenated organic compound to be treated at the TTF. These solvents are used in the handling of explosive compounds during research and development operations at SNL/NM.

Ignitable Liquids—Isopropyl alcohol (D001) is often used in the handling of explosive compounds during research and development operations at SNL/NM. In some cases it will be used to facilitate treatment of explosive waste.

Toxicity Characteristic Metal—Silver (D011) is present in SASN and is the only toxicity characteristic metal present in any of the explosive materials to be treated at the TTF.

Reactive Compounds—Reactive (i.e., explosive) substances (D003) are treated at the TTF, such as those listed in Section 2.3.1 of this permit application, and include high explosives, propellants, and pyrotechnics. With the exception of SASN, primary explosive compounds will not be treated at the TTF.

Operations Generating Explosive Hazardous Waste
All wastes to be treated at the TTF are generated at SNL/NM. These wastes are generated as a result of specific processes and activities that are well defined and well controlled, enabling SNL/NM to characterize waste streams on the basis of their KOP and the raw materials used. Prior to accepting waste for treatment at the TTF a detailed chemical and physical characterization of the waste must be performed is accordance with the requirements of NMHWMR-7, Pt. V, §264.13(a)(1). The characterization of hazardous waste is accomplished by the application of KOP. KOP is defined in NMHWMR-7, Pt. V, §264.13 (c)(2) as waste identification by applying knowledge of the hazardous characteristics of the waste based on the materials or processes used.

In addition, NMHWMR-7, Pt. V, §264.13 (c)(2) specifies that the chemical and physical analysis of a representative sample of the waste may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. To ensure detailed and accurate waste characterization exists involves the steps outlined in Section 2.7, Waste Screening and Verification.

The principle products of decomposition of the explosive substances and explosive contaminated items and liquids are ash (carbon) possibly contaminated with silver and the following gases: nitrogen, water vapor, carbon dioxide, carbon monoxide, sulfur dioxide, diatomic oxygen and traces of oxides of nitrogen. The maximum quantity of waste treated during any single burn event will be twenty pounds. After each burn event the contents of the burn pan will be collected, contained, labeled, stored, and disposed of as hazardous waste.

2.0 FACILITY EMERGENCY COORDINATOR

At all times, a FEC must be on site or on call (NMHWMR-7, Pt. V., Subpart D). In the event that the primary FEC is not on site or available, an alternate FEC must be contacted.

FACILITY EMERGENCY COORDINATOR		OFFICE PHONE	HOME PHONE
Primary:	David Castillo	848-0490	897-4560
Home Address:	5817 Broken Arrow NW Albuquerque, NM 87120	269-3766 (pager)	
Office Address:	P.O. Box 5800 Department 7042 Albuquerque, NM 87185		
First Alternate:	Boyd Hamilton		
Home Address:	7412 Sulky, NE Albuquerque, NM 87109	848-0480	828-9509 263-1653
(pager)			
Office Address:	P.O. Box 5800 Department 7042 Albuquerque, NM 87185		

When the FEC is notified of an incident, he must first determine if procedures for minor incidents or for emergencies should be implemented. In the case of minor incidents, the FEC will coordinate the response. In the case of emergencies, the FEC will relinquish control to the On-Scene Commander (OSC) assigned by the HCC Emergency Response Director when he arrives to handle the emergency; however, the FEC will remain on hand to provide technical guidance and relevant information about the TTF.

The FEC will ensure that personnel assigned to the TTF are trained in the location and use of safety hand-held deluge shower/eyewash, fire extinguishers, and emergency protective clothing, in emergency procedures, and in evacuation procedures.

During minor incidents at the TTF, or until the OSC arrives, the FEC has three primary responsibilities:

1. Assess the situation. By observing the scene, interviewing personnel, and/or reviewing records, the FEC gathers information relevant to the response, such as the type of event, quantity and type of released material and actual or potential hazards to human health or the environment.

2. Protect personnel. The FEC should take reasonable measures to ensure the safety of personnel, such as accounting for TTF personnel, attending to injuries, or coordinating the evacuation of TTF personnel, if necessary. If evacuation is indicated for other personnel, the OSC must be informed.

3. Contain or mitigate the hazards. The FEC should take reasonable measures to ensure that fires, explosions or releases do not occur, recur, or spread. For example, released explosive material should be kept saturated.

After both minor incidents and emergencies, the FEC must ensure that the facility and equipment are cleaned, waste is properly handled and disposed, and the TTF is safe to resume operation. Before operations are resumed, the FEC must contact Chemical Waste Management Department 7042, who will inform the appropriate agencies if necessary. See Emergency Recovery Procedures, Section 5.0. If the Contingency Plan and SNL/NM Response Resources were activated, the FEC is also responsible for preparing postemergency reports.

3.0 TTF RESPONSE PROCEDURES

The first person to become aware of an incident, during normal working hours, shall contact the FEC. The FEC will then assess the situation and determine the scale of the incident.

Only personnel trained in incident response activities will approach or handle unplanned situations. All other personnel will leave the vicinity of the unplanned conditions. Under no circumstances will the TTF be entered or approached by personnel unless:

- Waste is not present in the facility
- Waste has been rendered safe by complete detonation
- Waste has been stabilized by saturating it with water.

In the event that the FEC determines an incident to be minor, a person will be assigned to standby at a safely located telephone. At the first indication of incident escalation, the standby person will be instructed to notify the HCC at 144 or 844-0081. For the following reasons, most unplanned incidents involving the TTF will initially be considered minor incidents:

- Waste will only be present at the TTF on the day of planned treatment events and only in small quantities (i.e., less than 20 lbs.)
- The TTF is remotely isolated and fenced to prevent casual access
- There is very limited contact by the facility personnel with the hazardous waste
- The waste to be treated is stable when saturated with water
- Treatment operations are remotely controlled.

If the FEC determines that an emergency situation exists (i.e., releases extending outside TTF boundaries, fire, explosion, aircraft incidents, or natural disasters) or that human health, or the environment outside the TTF area is threatened, he will immediately notify the HCC at 144 or 844-0081 and activate this Contingency Plan. The HCC then assumes primary responsibility for emergency response coordination. The HCC will notify the National Response Center (1-800-424-8802) with the details of the emergency.

The HCC operates within the SNL/NM Incident Command System (ICS)—a management system used to coordinate the efforts of all SNL/NM response teams and capabilities and other response teams, such as KAFB Fire Department, as needed. The ICS is a system which is implemented at the time an incident occurs, expanded to control the incident as needs arise, and which remains in effect until the need for management no longer exists. The HCC, when activated, is manned by the Emergency Response Director and a staff consisting of DOE personnel; SNL/NM management; KAFB staff; and representatives from various response groups. Under the HCC,

the OSC is responsible for management of operations at the emergency site. The OSC coordinates operations with the four HCC sections: Operations, Logistics, Safety, and Planning.

The Operations Section identifies and carries out the actions necessary at the site to contain the emergency.

The Logistics Section identifies, acquires, deploys, and mobilizes the supplies, material, and equipment needed to deal with an emergency. Under the Logistics Section, Facilities Engineering has teams capable of responding to incidents that require knowledge of buildings and utilities, use of heavy equipment, and transportation of material, equipment, or personnel.

The Safety Section is responsible for ensuring that Medical and ES&H resources are available as needed. The Medical organization has established a Medical emergency response team, who responds to all medical emergencies during operational hours. The type of response to each emergency is determined through information received about the emergency. ES&H is primarily responsible for responding to releases of hazardous or toxic materials at facilities located within SNL/NM and for providing consulting services associated with personnel safety and health.

The Planning Section is responsible for collection of data (resources available, weather, field observations, etc.).

3.1 SPILLS

When dealing with any spill at the TTF, the following should be adhered to:

- The first priority in a spill is personnel protection--do not attempt to do anything to a spill until proper personal protective equipment has been donned and exercise great caution in handling a spill.
- The second priority in a spill at this unit is to keep the released material saturated. The waste treated at the TTF can be sensitive when dry, but stable when in water.

If a spill occurs while transferring waste:

1. Immediately discontinue the transfer of waste.
2. Notify the FEC.
3. As directed by the FEC:

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The Operations Section identifies and carries out the actions necessary at the site to contain the emergency.

The Logistics Section identifies, acquires, deploys, and mobilizes the supplies, material, and equipment needed to deal with an emergency. Under the Logistics Section, Facilities Engineering has teams capable of responding to incidents that require knowledge of buildings and utilities, use of heavy equipment, and transportation of material, equipment, or personnel.

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- The second priority in a spill at this unit is to keep the released material saturated. The waste treated at the TTF can be sensitive when dry, but stable when in water.

If a spill occurs while transferring waste:

1. Immediately discontinue the transfer of waste.
2. Notify the FEC.
3. As directed by the FEC:

a. Don personal protective equipment appropriate to prevent exposure to the material.

b. Remove contaminated material from the ground surface. Make sure the material remains saturated at all times.

c. Remove contaminated soil, if any.

d. Transfer all contaminated material to the TTF for treatment. This includes water used in decontaminating remedial equipment.

4. Note on a weekly log the details of the spill and cleanup.

3.2 PERSONNEL EXPOSURE

In the event of chemical material in the eye or on the skin:

1. Notify the FEC.

2. Wash the eye(s) or skin with the permanent eye wash station for at least 15 minutes.

3. Hold open the eyelids during washing.

4. After the wash, quickly transport the injured person to SNL/NM Occupational Medicine for evaluation.

5. If possible, the FEC should ascertain what chemical material was involved in the injury and give the information to SNL/NM Occupational Medicine.

In the event of:

- Irritation of the eyes, breathing passages, or skin,
- Difficulty in breathing,
- Nausea, light-headedness, vertigo, or blurred vision,

personnel will:

1. Notify the FEC.

2. Evacuate and barricade the area to prevent unauthorized entry.

3. Transport the affected person to SNL/NM Occupational Medicine.

4. The FEC should attempt to ascertain what, if any, chemical exposure occurred and what corrective measures are appropriate.

3.3 POWER FAILURE

Three pieces of equipment at the TTF would be affected by a power failure: the burners, the motor driven burn cage door, and the motor driven burn pad lid. All other equipment is manually operated. In the event of a power failure:

1. Before any waste has been placed inside the burn pan, discontinue operations until power is restored.

2. After waste has been placed inside the burn pan, but before the burners have been ignited; remove the waste if it is deemed safe and feasible and return it to its original container(s). If it is not possible to remove the waste, manually lower the burn pan lid and wait until power is restored to proceed with treatment. If power is not restored in time to perform the burn, secure the area, allow the waste to remain in the burn pan, and notify security personnel of the presence of the waste and potential hazards.

3. After the burners have been ignited and treatment has started, do not enter the TTF. Complete the treatment as soon as power is restored. If power is not restored in time to complete the burn, secure the area, manually lower the burn pan lid if it is deemed safe, allow the waste to remain in the burn pan, and notify security personnel of the presence of the waste and potential hazards. The burn should be completed as soon as possible.

3.4 UNPLANNED FIRE AND/OR EXPLOSION

Personnel operating the TTF have developed operating practices designed to eliminate the risk of fire and explosions. Unplanned detonation or combustion of the waste renders it harmless. In the unlikely event that an unplanned fire or explosion threatens areas outside the TTF boundaries, the FEC will immediately notify the HCC at 144 or 844-0081. This Contingency Plan and SNL/NM Response Resources will be activated in this situation.

3.5 NATURAL EMERGENCIES

After any natural emergency (earthquake, flood, lightning strike, etc.) the FEC will inspect the facility for any signs of damage, leakage, and land movement and initiate any necessary corrective measures, however temporary, to rectify potential or real problems. Inspection findings and corrective measures will be logged.

3.6 EVACUATION

The FEC will initially make the determination to evacuate the TTF. Personnel will evacuate the facility upon the voice command over the intercom of "evacuate the area," or upon the sounding of the fire alarm from Building 6715.

3.6.1 Evacuation Procedure

The following procedure will allow for a safe, coordinated evacuation:

1. When an evacuation is announced, stop work.
2. Do not remain in affected area except to assist injured personnel.
3. Proceed through the east gate of the facility fence approximately one-quarter mile to the northeast guard gate of TA-III.
4. Report to designated assembly area at the guard gate of TA-III for roll call taken by the FEC or his assignee.
5. Be continually cognizant of wind directions (stay upwind) and emergency equipment.
6. Do not reenter area until the FEC (limited incidents) or SNL/NM OSC (emergencies) determines that all is safe and secure.

3.6.2 Evacuation Routes

A map of the evacuation route is posted at the entrance to Building 6715. The FEC is responsible for ensuring that all new employees and site visitors are familiar with evacuation procedures and routes. A map showing evacuation routes is provided in Figure 1.

4.2 SNL/NM EMERGENCY EQUIPMENT

Equipment available for use at SNL/NM and the locations of this equipment are provided below:

ITEM OR EQUIPMENT	LOCATION/TELEPHONE
Emergency Vehicles	
Emergency Response Vehicle: Mobile Command Post equipped with communications equipment and SCBAs.	SNL/NM HCC—Call 144 or 844-0081
Ambulances	SNL/NM HCC—Call 144 or 844-0081
Security Vehicles: Vans and trucks equipped with communications equipment and utilized for transportation of personnel and equipment.	SNL/NM HCC—Call 144 or 844-0081
Fire Trucks: Fire-fighting vehicles outfitted with equipment for fighting fires.	SNL/NM HCC—Call 144 or 844-0081 KAFB—Call 117 or 844-0903
Helicopter: Rotary-wing aircraft for transportation of personnel to or from site.	SNL/NM HCC—Call 144 or 844-0081
Medical Supplies	
Stretchers/Stokes Litter: Equipment for movement of injured personnel. Stokes Litter will immobilize personnel so they may be moved vertically.	SNL/NM HCC-Call 144 or 844-0081
Blankets: Normal blankets.	SNL/NM HCC—Call 144 or 844-0081
Medical Kits: Emergency first-aid supplies.	SNL/NM HCC—Call 144 or 844-0081
Oxygen: Medical grade oxygen in compressed cylinders equipped for personnel use.	SNL/NM HCC—Call 144 or 844-0081

Safety Supplies

Air Packs: Self-contained breathing apparatus equipped with positive pressure mode for use by personnel entering hazardous atmospheres. Cylinders contain sufficient air for 60 minutes. No fewer than six air-packs are available.	SNL/NM HCC—Call 144 or 844-0081 SNL/NM Industrial Hygiene I, Department 7711—Call 844-3665
Monitoring instruments	SNL/NM Industrial Hygiene I, Department 7711—Call 844-3665

Transportation

Tractor-trailer combinations, 18 wheelers, 40-foot trailers, 40,000-pound capacity (7)	SNL/NM HCC—Call 144 or 844-0081
2-ton flat-bed trucks with sideboards (6)	
1-ton flat-bed trucks with sideboards (7)	
1.5-ton enclosed panel vans (4)	
Passenger vehicles including sedans and vans (10)	
Passenger buses (4)	

5.0 EMERGENCY RECOVERY PROCEDURES

5.1 POSTEMERGENCY INSPECTIONS

The following postemergency inspections will be done:

1. After any emergency, the FEC will inspect the premises for leaks or ruptures of equipment. He will ensure that all spill-related material is handled or disposed properly. The results of the inspection will be recorded on an inspection log.

2. Emergency response equipment must be carefully inspected and the equipment decontaminated, replaced or refurbished if needed. Fire extinguishers must be checked for adequate charge. Personal protective equipment must be checked for contamination. Remedial equipment must be inspected for contamination and proper operation. The eyewash must be checked for proper water pressure.

Within 24 hours of an emergency, fire extinguishers should be replaced through Facilities Fire Alarm Protection Systems 7811-3 and personal protective equipment decontaminated, repaired or replaced through Industrial Hygiene I, Department 7711.

Within three days of an emergency, other equipment and facilities should be decontaminated by cleaning with a solvent appropriate to the waste contamination. The spent solvent should be collected and treated as a hazardous waste. All appropriate personal protective equipment must be worn during decontamination procedures.

Within 30 days of an emergency, other equipment should be repaired or replaced.

5.2 POSTEMERGENCY REPORTS

The following postemergency reports will be made:

1. A verbal report of any incident must be promptly reported to the Supervisor or representative of the Chemical Waste Management Department 7042 if he was not informed of the incident during its occurrence. The Emergency Management Department 7435 will also be notified of non-emergencies at 844-6515 by either the FEC or Department 7042 personnel.

2. When this Contingency Plan is activated, a written emergency incident report will be prepared jointly by the FEC and Department 7042 and forwarded to the DOE within three working days. The written report will include at a minimum,

   - Name, address, and telephone number of the owner of SNL/NM
   - Name, address, and telephone number of the TTF
   - Date, time, and type of emergency
   - Name and quantity of material involved

- Extent of injuries
- Assessment of actual or potential hazards to human health or the environment
- Estimated quantity and disposition of recovered material.

3. Before Operations are resumed at the TTF, the NMED will be notified that the TTF is in compliance with 40 CFR § 264.56(h).

The DOE will send the incident report to the U.S. Environmental Protection Agency or the New Mexico Environment Department within 15 days of the occurrence.

5.3 EMERGENCY RESPONSE EVALUATION

The Emergency Management Department 7443 is responsible for annual evaluations of SNL/NM Emergency Plans and Procedures and for the evaluation of the response to each emergency. If these evaluations reveal that changes to the SNL Emergency Plans and Procedures are necessary, they will be amended by Department 7443 and distributed to the appropriate organizations.

This Contingency Plan will be reviewed and, if necessary, amended by TTF personnel and Department 7042 whenever:

1. The facility permit or applicable regulations are revised.
2. The plan fails in an emergency.
3. The facility design, construction, operation, maintenance, or other circumstances change to increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.
4. The list of emergency coordinators and/or phone numbers changes.
5. The list of emergency equipment changes.

ATTACHMENT 7

CLOSURE PLAN

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 Closure Plans, Postclosure Plans, and Financial Requirements

This chapter contains the Closure Plan that describes the activities necessary to close the TTF. This plan is submitted to the NMED in accordance with NMHWMR-7, Pt. IX, §270.14(b)(13). Closure will include decontamination and decommissioning of all TTF structures and equipment. Until final closure of the TTF is complete and has been certified in accordance with NMHWMR-7, Pt. V, §264.115, a copy of the approved plan and all approved revisions will be on file at the SNL/NM Department 7057 Environmental Programs Record Center and available to the Secretary of the NMED or the EPA Regional Administrator upon request.

Facility Description (Prior to 1986)

The TTF consisted of a square burn pan, 29-1/4 inches (74.3 centimeters) on each side and 5-5/8 inches (14.3 centimeters) deep, constructed of 3/8 inch (1 centimeter) steel. The burn pan is enclosed by a grated steel (i.e., open to the air) cage, approximately 4 feet (1.2 meters) on each side and 8 feet (2.4 meters) tall. Access to the burn pan was provided through a steel mesh door on the north side of the burn cage which was remotely operated from inside Building 6715. The cage and burn pan rested on a square metal base and concrete pad approximately 5 feet on each side. The TTF was surrounded by a dirt berm. A remote-controlled propane gas-fired burner system was used to burn waste. An overhead monorail was used to transport waste to the TTF.

Facility Description (After 1986)

The TTF was modified to its present configuration by the addition of the following: a remotely operated metal lid to cover the burn pan, new steel grating installed on the cage, a new metal base pan 12 feet 8 inches on each side with a 4-inch-high curb at the perimeter to serve as containment, a filter system and settling basin, a rain catchment tank, a concrete apron, steps and wing walls, a water spigot, and a chain link security fence. The overhead monorail was disabled and polyethylene tubing with secondary containment was added to allow for pumping waste into the burn remotely. In September 1986, prior to the above

Table 1-1

Summary of Soil Analytical Results Prior to Thermal Treatment Facility Design Modifications September 1986

Sample Identification	EP Toxicity Silver (µg/kg)
HW108 Soil Sample	ND < 0.01[1]
HW109 Soil Sample	ND < 0.01
HW110 Soil Sample	ND < 0.01

[1]ND = Not detected; the method detection limit is the amount stated in the table above.

Table 1-2

Summary of Analytical Results for Treatment Residue Thermal Treatment Facility

Sample Identification	Location	Silver[1]	Acetone
8294	Postfilter sediment	0.08 mg/kg	ND < 0.05[3]
8295	Postfilter sediment	140 mg/kg	ND < 0.05 mg/L
8296	Postfilter water	1.6 mg/L	ND < 0.5 mg/L
8297	Tank water (waster water from LIHE wash-down processes)	1.3 mg/L	ND < 0.05 mg/L
8298	Burn pan sediment (ash)	120 mg/kg	1.5 mg/L

[1]Sediment and water analyzed for silver using EPA Method 6010, SW-846, EPA, 1986b.
[2]Sediment and water analyzed for acetone using EPA Method modified 8015, SW-846, EPA, 1986b.
[3]ND = Not detected; the method detection limit is listed in the table above.

✓ High Explosives:
✓
✓ • Hexanitroazobenzene (HNAB)
✓ • Pentaerythritol tetranitrate (PETN)
✓ • Hexahydrotrinitrotriazine (RDX)
✓ • Trinitrotoluene (TNT)
✓ • Nitroglycerine (NG)
✓ • Octohydrotetranitrotetraozcine (HMX)
✓ • Hexanitrostilbene (HNS)
✓ • Triaminotrinitrobenzene (TATB)
✓ • Silver acetylide/silver nitrate (SASN)
✓
✓ Propellants:
✓
✓ • Single base propellants (nitrocellulose)
✓ • Double base propellants (nitrocellulose + nitroglycerine)
✓ • Triple base propellants (nitrocellulose + nitroglycerine + nitroguanidine)
✓ • Composite propellants containing:
✓ – Ammonium nitrate
✓ – Sodium nitrate
✓ – Potassium nitrate
✓ – Ammonium perchlorate
✓ – Potassium perchlorate
✓ • Black powder (potassium nitrate + sulfur + charcoal)
✓
✓ Pyrotechnics:
✓
✓ • Titanium hydride/potassium perchlorate.

1.1.4 Schedule for Closure

The TTF is expected to be closed in the year 2100. Cleaning, sampling, and analytical activities are expected to take 90 days. The concrete pad may need to be transported to an off-site hazardous waste facility for disposal. If this occurs, demolition, loading, and transportation of the pad is expected to take an additional 90 days, including the awarding of the transportation and disposal contract. Total closure time is expected to require 270 days.

- Unexpected events occur during partial or final closure that require modification of the approved Closure Plan

- Changes in state or federal laws affect the Closure Plan.

DOE/SNL will submit a written request, pursuant to NMHWMR-7, Pt. V, §264.112(c), for a permit modification with a copy of the amended Closure Plan at least 60 days prior to the proposed change in facility design or operation, or within 60 days of the occurrence of an unexpected event that affects the Closure Plan. If the unexpected event occurs during final closure, the permit modification will be requested within 30 days of the occurrence. If the Secretary of the NMED requests a modification of the Closure Plan, a plan modified in accordance with the request will be submitted within 60 days of notification, or within 30 days if a change in facility condition occurs during final closure.

The TTF Project Leader, or designee, is responsible for the storage and updating of the facility copy of the closure plan and the distribution of amended/updated copies of the closure plan to the Department 7057 Environmental Programs Record Center, the DOE-Albuquerque Field Office and the NMED.

1.2 Closure Procedures

When the decision is made to close the TTF, all hazardous waste present at the site will be treated or removed before closure activities commence. To the extent possible, all contaminated structures and equipment will be decontaminated and removed. Any structures and equipment that cannot be decontaminated will be dismantled, placed into containers, and managed as hazardous waste.

The first phase of closure will consist of a hazards survey of the TTF conducted by health physics and industrial hygiene personnel. The purpose of the survey will be to identify potential contamination concerns that may present hazards to workers during the closure activities and to specify any control measures necessary to reduce worker risk. This survey will provide the information necessary for health physics and industrial hygiene personnel to identify worker qualifications, PPE, safety awareness, work permits, exposure control programs, and emergency coordination that will be required to perform closure. All workers involved in the closure activities will be required to have training and medical monitoring as

Table 1-3
Analytical Parameters

Metals	Organics
Silver	Halogenated volatile organics
	Nonhalogenated volatile organics
	Acid-extractable semivolatile organics
	Base-neutral extractable semivolatile organic
Other	
Ignitability	
Reactivity	
pH	
Cyanides	

Note: Metals and organics will be analyzed for total content. All data shall be reported in the final report.

1.2.1.2 Liquid Sampling

A Coliwasa sampler or similar device will be used to sample the wash water used in cleaning equipment. As an alternative to the Coliwasa, glass tubes may be used to sample liquids. The primary advantage in using a glass tube is that the tube will be disposed of after each sample is collected, thus eliminating the potential for cross contamination.

Liquid sampling with a Coliwasa shall proceed as follows:

- Make sure that the Coliwasa sampler is clean.
- Assemble the Coliwasa sampler.
- Check to make sure the sampler is functioning properly. Adjust the locking mechanism, if necessary, to make sure the neoprene rubber stopper provides a tight closure.
- Wear necessary protective clothing and gear and observe required sampling precautions.
- Put the sampler in the open position by placing the stopper rod handle in the T-position and pushing the rod down until the handle sits against the sampler's locking block.
- Slowly lower the Coliwasa sampler into the liquid at a rate that permits the level of the liquid inside and outside the sampler tube to be about the same. If the level of the liquid in the sampler tube is lower than that outside the sampler, the sampling rate is too fast and will result in a nonrepresentative sample.
- When the sampler stopper hits the bottom of the liquid container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the closed position by turning the T-handle until it is upright and one end rests tightly on the locking block.
- Slowly withdraw the sampler from the container with one hand while wiping the sampler tube with a disposable cloth with the other hand.
- Carefully discharge the sample into a glass container by slowly opening the sampler. This is done by slowly pulling the lower end of the T-handle away from the locking block while the lower end of the sampler is positioned in the glass container.

laboratory and returned to SNL/NM for inclusion in facility records. The chain-of-custody form will include a request-for-analysis form which lists all analyses to be performed for the identified samples and all special instructions relating to sample management or analysis. Potential hazards posed by the samples will be listed in the request-for-analysis form; surface dose rates will be determined for all potentially radioactive samples and entered on the form.

The sample container must be sealed with a gummed paper seal attached to the container in such a way that the seal must be broken in order to open the container. The seal and sample tag must be completed with a waterproof pen. The sample label is necessary to prevent misidentification of samples and shall include the following information: a unique sample number, sample collection date and time, sample location, sample type, depth, and description.

A closure sampling field log book will be kept and will contain all information pertinent to field surveys and sampling. The log book shall have bound and consecutively numbered pages in 8-1/2 by 11-inch format. Minimum entries include:

- Purpose of sample
- Location of sampling (coordinates referenced to staked field points, if soil sample)
- Name and business address of person making log entry
- Number and volume of sample
- Description of each sampling location, sampling methodology, equipment used, etc.
- Date and time of sample collection
- Sample destination and transporter's name (name of laboratory, UPS, etc.)
- Map or photograph of the sampling site, if any
- Field observations (ambient temperature, sky conditions, past 24-hour precipitation, etc.)
- Field measurements, if any (pH, flammability, conductivity, explosivity, etc.)

1.2.5 Sample Analysis

Test methods for analysis of all samples will be performed according to procedures documented in SW-846. Regulated wastes treated at the TTF are included in these analyses.

Minimum calibration, operation, quality control (bias, precision, blank and matrix effects) requirements for laboratory analyses shall be performed as listed in the individual analytical methods of SW-846. All laboratory analyst notebooks, log sheets, instrument printouts, charts, and calculations relevant to analyses of these samples shall be identified and remain accessible. This information may be requested for independent review and validation.

1.2.6 Quality Assurance/Quality Control

Because decisions about closure activities may be based, in part, on analyses of potentially contaminated surfaces and media, a program to ensure reliability of analytical data is essential. Data reliability will be ensured by documenting sample management so that analyses are traceable to specific areas of potential contamination and by following a QA/QC program that mandates documentation of the precision and accuracy of laboratory analyses.

Blanks and duplicate samples will be collected to determine potential errors introduced in the data from sample collection and handling activities. To determine the potential for cross-contamination, rinsate blanks, consisting of rinsate from decontaminated sampling equipment, will be collected and analyzed. At least one rinsate blank will be collected for every ten samples. Duplicate samples will be collected at a frequency of one duplicate sample for every ten field samples. In no case will less than one rinsate blank or duplicate sample be collected for a sampling effort. These blank and duplicate samples will be identified and treated as separate samples. Acceptance criteria for QA/QC sample analyses will be compatible with the most recent version of SW-846 or other applicable EPA guidance.

1.3 Decontamination Verification

Sufficient sampling and analysis will be required to demonstrate that hazardous waste residue is not present at the site after closure. Soil and wash water samples will be analyzed for parameters listed in Table 8-1 to verify the presence or absence of hazardous waste contamination. If the extent of soil contamination at the site is such that clean closure cannot be achieved, a post-closure care plan will be prepared to address the constituents remaining at the site.

1.5 Postclosure Plan/Contingent Postclosure

A postclosure plan is not required for the TTF because all hazardous waste will be removed from the facility, and the facility will be decontaminated at closure. Therefore, this requirement does not apply.

1.6 Notices Required for Treatment Facilities

1.6.1 Certification of Closure

Within 60 days after completion of closure activities for the TTF, DOE/SNL will submit to the Secretary of the NMED, via certified mail, a certification that the unit has been closed in accordance with the specifications of this Closure Plan, when approved. The certification will be signed by DOE/SNL and by an independent registered professional engineer. Documentation supporting the independent registered engineer's certification will be furnished to the Secretary of the NMED with the certification.

1.6.2 Survey Plat

A survey plat will not be required for the TTF because all waste will be removed from the facility, and the facility will be decontaminated at closure. Therefore, this regulation does not apply.

1.6.3 Final Closure Report

Upon completion of the closure activities, a Final Closure Report shall be sent to the Secretary, NMED. The report shall document the final closure and contain, at a minimum, the following:

- The certification described in Section 8.6.1
- Any variance from the approved activities and the reason for the variance.
- A tabular summary of all sampling results, showing:
  - Sample identification
  - Sampling location
  - The datum reported
  - Detection limit for each datum
  - A measure of analytical precision (e.g., uncertainty, range, variance)
  - Identification of analytical procedure

ATTACHMENT 8

FACILITY DESCRIPTION

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

Facility Description

1.1 General Description

The Thermal Treatment Facility (TTF) is located in the northeast corner of Technical Area (TA)-III at Sandia National Laboratories, New Mexico (SNL/NM) south of Building 6715 (Figure 1-1).

The TTF is used to thermally treat (i.e., burn) small quantities of explosive contaminated wastes. The waste is in the form of waste explosive substances (e.g., powders, granules), waste items (e.g., rags, wipes) contaminated with explosive substances, and waste liquids (e.g., water, alcohols) contaminated with explosive substances. No fragment-producing, confined, or mass detonating explosives will be treated in the TTF. Some explosives will be wet with water or a flammable liquid to facilitate safe handling, transportation, and treatment.

The treated contents of the burn pan are managed as hazardous waste. A Chemical Waste Disposal Request (CWDR) is submitted by TTF personnel to Department 7042. Department 7042 arranges for the disposal of the treated and containerized contents of the burn pan.

Waste is not stored at the TTF and is only present during a planned treatment event.

1.2 Topographic Map

Figures 1-2, 1-3, and 1-4 are provided to meet the requirements of the New Mexico Hazardous Waste Management Regulations-7 (NMHWMR-7), Part IX, §§270.14(b)(19), and 270.23(a)(2). Figure 1-2 is a topographic map showing all SNL/NM TAs. Figure 1-3 is a topographic map of the TTF. Figure 1-4 provides a detailed site plan of the TTF and vicinity in TA-III.

1.2.1 General Requirements

A map scale, date, and north arrow are shown on Figures 1-2 and 1-3. The 100-year floodplain and major surface water bodies within 10 miles (16 kilometers) of the site are shown on Figure 1-2. The TTF is not in a 100-year floodplain.

1.2.1.1 Wells

There are no injection wells at SNL/NM. Resource Conservation and Recovery Act (RCRA) ground water monitoring wells and withdrawal wells located at SNL/NM are shown in Figure 1-2. None of these

wells are expected to be influenced by hazardous waste management activities at the TTF because transport, repacking, and thermal treatment only occurs in contained areas.

1.2.1.2 Wind Rose

A network of seven meteorological towers surrounding SNL/NM-operated nuclear reactors was established in July 1960 to monitor weather conditions; an eighth station was added in May 1965. These studies indicate that the prevailing winds at SNL/NM are from the east, except that winter winds at the 100-foot (30-meter) elevation are from the north. Rapid night-time ground cooling after sunset on cloudless or near cloudless nights produce strong temperature inversions (an atmospheric condition reversal of the normal temperature lapse rate in which temperature increases with increasing elevation). This rapid cooling effect generates drainage winds (katabatic winds) out of the mountains, which are strongest at the mouths of the larger canyons. It also appears that Tijeras Arroyo diverts surface air flow between TAs III, V, and Coyote Test Field on the one hand, and TAs I, II, IV, and Albuquerque on the other. Specific wind information can be inferred from these studies, in particular Station One, which is located on the eastern boundary of TA-III, and Station Four, which is located in TA-I east of Building 880. The channeling of wind through Tijeras Canyon can be seen by comparing the wind roses from these two areas. Figure 1-5 shows wind roses for TA-I and TA-III that summarize ten years of data from Stations One and Four (percent frequency at 100 feet [30 meters]) and was taken from the Environmental Monitoring Program.

1.2.1.3 Land Use

SNL/NM, is located south of Albuquerque, New Mexico, within the boundaries of Kirtland Air Force Base (KAFB) in Bernalillo County (Figure 1-1). Although SNL/NM is surrounded by KAFB, most SNL/NM facilities are located on U.S. Department of Energy (DOE) land. Albuquerque is the largest population center in Bernalillo County and also the closest population center to KAFB. An estimated total population of 571,677 people live within a 50-mile (80-kilometer) radius of KAFB (DOC, 1991). This population includes permanent residents of KAFB living in the KAFB housing areas.

Land use in the vicinity of SNL/NM and KAFB is urban to the northwest, north, and northeast. Undeveloped, Indian-owned grazing land of the Isleta Pueblo is located to the south. Undeveloped state-owned grazing land lies to the west and southwest of KAFB.

The urbanized area immediately northeast, north, and northwest of SNL/NM is predominantly residential, with commercial development along more heavily-traveled streets. Military (base) housing is located adjacent to the northern edge of SNL/NM, TA-I. Albuquerque International Airport is located northwest of KAFB. Figures 1-6 and 1-7 show land uses both within KAFB boundaries and the area adjacent to KAFB.

At its nearest point, the TTF is approximately 3 miles (5 kilometers) south of Interstate 40 and 6.5 miles (10 kilometers) east of Interstate 25 and downtown Albuquerque. The TTF is located in TA-III on DOE land.

1.2.2 Additional Information Requirements

Chapter 3.0 contains detailed descriptions of TTF site characteristics, including geology and hydrology, and a summary of SNL/NM environmental monitoring data. No contamination has entered the ground water from the TTF. Furthermore, it is highly improbable that any contamination will enter the ground water from the TTF. Chapter 4.0 discusses ground water monitoring at SNL/NM.

1.3 Location Information

The TTF is located in the Mexican Highlands section of the Basin and Range physiographic province. The facility is in TA-III of SNL/NM in Bernalillo County, New Mexico (Figure 1-1).

1.3.1 Seismic Standard

SNL/NM is located in Bernalillo County, New Mexico, which is listed in Appendix VI of NMHWMR-7, Pt. V. No faults or fault traces with Holocene displacements have been located within 2,000 feet (600 meters) of the TTF. The following information is provided to demonstrate compliance with seismic location standards in NMHWMR-7, Pt. V, §264.18(a).

The TTF is located near the eastern edge of the center of the Rio Grande Rift, which contains the course of the Rio Grande from southern Colorado into southern New Mexico. The rift is bounded along its lengths by uplifts and major bounding faults forming a series of linked basins that trend about North 20 degrees East. The Albuquerque Basin, in which Albuquerque, New Mexico, is located, is one of the series and extends from near Sante Fe to just south of Socorro (Figure 1-8). The basin is bounded on the west by the Lucero uplift, on the south by the Socorro uplift, on the north by the Nacimiento uplift, and on the east by the

Sandia, Manzanita, and Manzano Mountains. The eastern margin of the Albuquerque Basin is bounded by the Los Pinos uplift to the south, the Manzano uplift farther north, and the Sandia uplift along the margin's northern extent. Both margins of the basin are marked by a series of faults that have been mapped and studied extensively since the early 1930s (Kelley, 1977, and Bryan, 1938).

The TTF is located near the western edge of the Manzano uplift and just west of the pervasive faulting that marks the uplift margin. Features of note in the area include the Hubbell Springs, Manzano, and Tijeras Faults; the Travertine Hills; and the Hubbell Bench. These features, shown in Figure 1-2 are described below. The locations of these features were determined primarily from published information and examination of aerial photographs; however, field reconnaissance was conducted to verify the features' locations with respect to SNL/NM waste management facilities. The known faults in the area are 5,000 feet (1,500 meters) or more from the TTF.

Hubbell Springs Fault. The north-south trending Hubbell Springs Fault is apparently unbroken for over 35 miles (56 kilometers) from the southeast part of Township 3 North (T3N), Range 4 East (R4E), in Socorro County to its intersection with the Tijeras Fault on KAFB. The Hubbell Springs Fault is easily recognized by surface mapping as it is marked by possibly the most spectacular fault scarps in this portion of the Rio Grande Rift (Machette, 1981). The fault scarp is thought to have developed during the Pliocene and Quaternary movements which were relatively minor and recurrent (Reiche, 1949). Reiche (1949) also implied that the most recent movement on the fault is Holocene. Machette (1982) indicates that while ample evidence exists to suggest multiple fault movements during the Quaternary, his observations do not indicate Holocene movement. Scarp-morphology data collected along two segments of the Hubbell Springs Fault indicate that the most recent movement of the fault probably occurred over 15,000 years ago (pre-Holocene) (Machette, 1982). The Hubbell Springs Fault is located more than 2.25 miles (3.5 kilometers) to the southeast of the TTF.

Manzano Fault. The Manzano Fault has been shown as a major rift-bounding normal fault at the base of the Manzano Mountains. Movement along this fault probably formed the precipitous front of the mountains (Machette, 1982). The most recent movement of this fault probably occurred during the middle Pleistocene based

on fault-scarp evidence (Machette, 1982). The Manzano Fault is located more than 5 miles (8 kilometers) to the east of the TTF.

Tijeras Fault. The Tijeras Fault and related tectonic system is probably one of the most extensive in New Mexico (Grant, 1982). From its intersection and probable point of truncation by the more recent Hubbell Springs Fault on KAFB, it trends about 55 miles (88 kilometers) northeast to the Canoncito area east of the Sangre de Cristo Mountains. The Tijeras Fault is located more than 1.75 miles (2.5 kilometers) to the east of the TTF. The most recent movement of the fault is probably pre-Pleistocene (Machette, 1982).

Travertine Hills. The low hills in sections 27, 28, 33 of T9N, and R4E, are travertine mounds rising some 100 to 125 feet (30 to 38 meters) above the mesa floor and covering 240 acres (1 square kilometer). The hills are aligned in a north-south direction, less than 1/2 mile (0.8 kilometer) east of the prominent Hubbell Springs Fault trace. All the travertine deposits are conglomeratic; however, the composition of the conglomerate components is such that determining the age of the deposits is nearly impossible. The occurrence of the travertine deposits near the intersection of the Hubbell Springs and Tijeras Faults suggests that large volumes of water once migrated along the fault system. The Travertine Hills are more than 2.25 miles (3.5 kilometers) to the southeast of the TTF.

Hubbell Bench. The Hubbell Bench lies along the western bases of the Manzano and Los Pinos uplifts and is bounded on the west primarily by the Hubbell Springs Fault. The bench is the largest of several benches that border the Albuquerque basin and is approximately 2 to 6 miles (3 to 10 kilometers) wide and about 55 miles (88 kilometers) long (Kelley, 1982). Rocks of Pre-Cambrian, Pennsylvanian, and Permian ages are exposed along faults that bound the northern part of the bench; most of the northern bench, however, is covered with the Ortiz gravels of early Quaternary age. The Ortiz gravels represent a surfaced pediment deposit that cover most of the Hubbell Bench. The Hubbell Bench is located more than 3.5 miles (6 kilometers) to the east of the TTF.

1.3.2 Floodplain Standard

SNL/NM is located near the middle of the upper Rio Grande basin that originates in southern Colorado. TA-III occupies generally flat, gently west-sloping mesa land located between the Rio

Grande Valley to the west and the Manzano and Manzanita Mountains to the east. The nearest surface water body is the Rio Grande, located about 7 miles (11 kilometers) west of SNL/NM.

The extent of the 100-year floodplains of Tijeras Arroyo and Arroyo del Coyote is shown in Figure 1-2. Figure 1-2 is derived from a U.S. Army Corps of Engineers map (COE, 1979a), prepared using Federal Emergency Management Administration guidelines which are equivalent to the mapping techniques used to prepare Federal Insurance Administration floodplain maps. The TTF is not located within a 100-year floodplain as defined in NMHWMR-7, Pt. V, §264.18(b)(2)(i), and as regulated under NMHWMR-7, Pt. V, §264.18(b)(1). Floodplain regulations are not applicable to the TTF.

1.4 Traffic Patterns

The perimeter of KAFB, including SNL/NM facilities, is enclosed by a 7.5-foot (2.3-meter) chain-link and barbed wire fence, and the base perimeter is routinely patrolled by security personnel. Access is provided through continuously-guarded entrance gates. In 1984, the average number of vehicles passing through the gates during normal workday hours from Monday through Friday was estimated by Meyers (1991) to be:

- Carlisle-Gibson gate - 5,200 vehicles
- Truman-Gibson gate - 10,200 vehicles
- Louisiana-Gibson gate - 18,000 vehicles
- Wyoming gate - 21,600 vehicles
- Eubank gate - 12,200 vehicles.

The majority of this traffic consists of commuting employees in personal automobiles and light-duty trucks. Currently, about 8,400 people are employed at SNL/NM (including SNL/NM personnel and contractors). An estimated additional 21,000 people are employed at the adjoining KAFB and DOE facilities (Jackson, 1991). Traffic flow within the base is controlled by traffic lights, stop signs, and yield signs. One-way streets are common. The number of employees at SNL/NM has not significantly changed since 1984; therefore, SNL/NM believes the 1984 traffic data is accurate for 1993.

A system of interior roads, as shown in Figure 1-2 is maintained at SNL/NM. About 78 total miles (126 kilometers) of roadway exist, of which about 33 miles (53 kilometers) are paved. Access to the TTF is by paved road. Traffic routing in emergency situations is discussed in the Contingency Plan for the TTF (Appendix A).

All of the paved roads present at SNL/NM were built in conformance with the New Mexico State Highway Standards or the City of Albuquerque Standards for Corridors. These standards are in conformance with national specifications prepared by the American Association of State Highway Transportation Officials. All paved roads at SNL/NM are designed and constructed to accommodate heavy truck traffic.

Access to the five high-security SNL/NM TAs is controlled by security guards and is restricted to government vehicles and commercial vehicles requiring physical access. Only personnel with appropriate security clearance and identification or escorted visitors are allowed access to the TAs. Vehicles and personnel entering the TAs are subject to periodic search by security personnel. Each TA is surrounded by chain-link and/or barbed-wire fences which limit any traffic through or other access to the areas.

Traffic access to and egress from the TTF is along the access roads shown in Figure 1-3. All vehicles must stop at the guard gate prior to entering and leaving the TA-III. Waste is transported to the TTF for treatment in approved containers by trained explosive handlers. The only waste transported from the TTF is the ash remaining in the burn pan after treatment and the liquid collected in the catch tank if it fails to meet City of Albuquerque wastewater discharge parameters. These wastes are collected, containerized, and transported to the SNL/NM Hazardous Waste Management Facility (HWMF), a permitted storage area. Within 60 days of the treatment event a CWDR will be submitted to the HWMF to initiate pick-up and transport of the ash to the HWMF.

ATTACHMENT 9

WASTE MANAGEMENT

FOR THE

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORIES
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 1993

1.0 Process Information

1.1 Process Description

The subject of this permit application is the thermal treatment of explosive hazardous wastes and explosive-contaminated wastes at the TTF. Waste handling and management practices at the TTF are summarized in this section. A detailed description of the facilities and systems associated with managing this waste is provided in Section 3.3.3. Specific container management practices are discussed in Section 3.4.

1.1.1 Waste Description

A comprehensive description of the wastes that may be treated at the TTF is provided in Permit Attachment 1.

1.1.2 Waste Management Operations

Waste to be treated is transferred to the TTF Building 6715 Complex on the day of the planned treatment event. The containers of waste are transported through the east gate of the Building 6715 Complex to a location approximately 50 feet (15 meters) north of the TTF. Waste is manually unloaded from the transport vehicle by the transporter and placed just outside the fence at the bottom of the steps on the north side of the TTF. Outer waste containers remain closed except to remove the waste and place it in the burn pan. All waste to be treated is manually placed or poured inside the burn pan by qualified explosive waste handlers, except for SASN contaminated liquid, which is pumped into the burn pan from inside Building 6715. All other treatment operations are performed remotely from inside Building 6715 by qualified TTF personnel. The door to the burn cage is remotely closed from the control console in Building 6715, and the treatment process started. Three remotely operated propane gas jets, one positioned to heat the inside of the burn pan and two positioned to heat the bottom of the burn pan, are ignited. The gas jet located over the burn pan ignites materials in the pan. Upon heating, the waste burns and decomposes (i.e., oxidizes to nonhazardous gases and carbon). The burn may be repeated several times to assure complete destruction of the explosive waste.

The treated contents of the burn pan are managed as hazardous waste. A CWDR is submitted by TTF personnel to Department 7042. Department 7042 arranges for the transport of the treated and containerized contents of the burn pan to the HWMF.

1.1.3 Facility Location, Design, and Construction

The TTF consists of a square burn pan, 29-1/4 inches (74.3 centimeters) on each side and 5-5/8 inches (14.3 centimeters) deep, constructed of 3/8 inch (1 centimeter) steel. A remotely operated metal lid can be raised to open, or lowered to cover the burn pan. The burn pan is enclosed by grated metal (i.e., open to the air) cage, approximately 4 feet (1.2 meters) on each side and 8 feet (2.4 meters) tall. The roof is nearly solid metal with slots for tracks and cable (figure 1-4). Access to the burn pan is provided through a steel mesh door on the north side of the burn cage which is remotely operated from inside Building 6715. The burn cage sits in the center of a steel lined concrete pad 12 feet 8 inches (3.86 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any water (from precipitation) which collects inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594-liter) catch tank. The steel lined concrete pad is surrounded on the west, south, and east sides by an earthen berm, approximately 8 feet (2.44 meters) tall. An 8-foot (2.4 2.44 meter) high chain link security fence surrounds the entire TTF. Three gates, located on the north side of the fence, provided access to the TTF.

Releases from the TTF that may be harmful to human health or the environment (i.e., ground water, surface water, or air) are precluded by the location, design, and construction (Figure 1) of the miscellaneous unit. Section 1.5 of this permit application provides information on compliance with the NMHWMR-7, Pt. V, §§264.601 and 264.602.

1.1.3.1 Site Security

The security requirements contained in NMHWMR-7, Part V, §264.14, and NMHWMR-7, Pt. IX, §270.14(b)(4), require that security be provided by 24-hour surveillance <u>or</u> if that requirement cannot be met, a barrier and means to control entry be provided. The TTF has 24-hour security surveillance and means to control entry. In addition, warning signs are provided. The TTF meets the security requirements. These security requirements are described in detail in Permit Attachment 2.

1.1.3.2 Waste Handling Equipment

A peristaltic pump is used to transfer waste liquid contaminated with SASN from Building 6715 into the TTF burn pan and is the only waste handling equipment used at the TTF. Outer containers used to transport reactive explosive waste are hand carried to the TTF. The inner packages are manually removed from the outer containers by trained explosives handlers and then manually

placed or poured in the TTF burn pan. The waste is not handled after placement in the burn pan or before treatment. TTF treatment operations (i.e., waste ignition) are remotely performed from the control console in Building 6715. After treatment is complete, the ash in the burn pan is manually unloaded (using palstic scoops), placed in containers, and transported to the HWMF by trained hazardous waste handlers.

1.2 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately 20.8 gallons (78.9 liters). The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is 20.8 gallons (78.9 liters). Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

plate). The settling basin is 20-by 8-by 14 inches (51-by 20-by 35-centimeters) deep and is covered by a steel plate. A terry-cloth filter is suspended in the settling basin to retain particles in the run-off from the slab. Water does not collect in the settling basin. The run-off is principally precipitation collected on the steel-lined concrete pad. Water collected in the catch tank will be containerized if suspected to be the result of a release or contaminated with hazardous waste constituents. If the water meets the City of Albuquerque discharge parameters, it will be discharged into the City of Albuquerque sewer treatment system with a one time notice placed in the facility's file in accordance with NMHWMR-7, Pt. VIII, §268.7 (a)(6). If the wastewater cannot be discharged into the City of Albuquerque sewer treatment system, it will be handled through normal procedures at the HWMF.

Containers without Free Liquids—Although most containers of explosive hazardous waste to be treated at the TTF will not contain free liquids, they are managed in the same manner as those containing free liquids.

1.3 Waste Characterization

Explosive hazardous waste characterization is described in Permit Attachment 1.

1.4 Treatment Effectiveness

The thermal treatment of wastes at the TTF is completely effective in destroying the explosive. The waste explosives have autoignition temperatures of 300°C (570°F). Propane, used to ignite the TTF has a flame temperature of 1925°C (3500°F). The TTF burners are operated for a minimum of 30 minutes after there is no visual (sparks) or audible evidence of untreated explosive waste remaining the burn pan. No waste explosives have been found in the treated TTF ash since the beginning of TTF operations in 1970. Also, there is no evidence of ejection of explosive from the burn pan during the burns.

Given the extremely high vapor pressure and low flash points of the solvents (e.g., isopropyl alcohol, acetone) that may be treated at the TTF (the flash point of isopropyl alcohol is 53°F/11.7°C, and the flash point of acetone is 15°F/-9.4°C), it can be concluded that the materials are completely burned and decompose to gaseous by-products (see Section 2.3.4 of this permit application). However, in accordance with land disposal restrictions, the treatment residue is considered to be derived from the treated wastes and will be managed as hazardous waste.

1.5 Environmental Performance Standards for the Miscellaneous Unit

The TTF will be operated, maintained, and closed in a manner that will ensure protection of human health and the environment, in accordance with NMHWMR-7, Pt. V, §264.601. The TTF is located in a sparsely populated area. The TTF has been designed to facilitate safe handling and treatment of wastes in order to prevent adverse human health and the environmental impacts. The small quantities treated, open burning restrictions, and operating requirements minimize the potential for a release. Hazard prevention programs are described in Permit Attachment 2. Contingency and emergency response actions to minimize impacts of unanticipated events, such as spills, are described in Permit Attachment 6. The closure plan for the TTF is described in Permit Attachment 7.

In conformance with NMHWMR-7, Pt. V, §264.601, a miscellaneous hazardous waste storage, treatment, or disposal facility must be shown to prevent any releases to ground water, surface water, soil, or air that may have adverse effects on human health and the environment. The TTF has been designed and is operated in such a manner as to meet these requirements.

1.5.1 Protection of Ground Water

Four situations present the potential for the release of hazardous waste to the TTF's hydrogeologic environment. They are:

- Transfer of liquid waste to the TTF burn pan
- Transfer of solid waste to the TTF burn pan
- Runoff of potentially contaminated precipitation
- Discharge of potentially contaminated precipitation from the catch tank.

If a spill occurs, the maximum amount of material that could be released is 2 gallons (7.5 liters). Spillage would be immediately removed and placed in the TTF.

Solid waste, such as explosive-contaminated paper, filters, and solid explosives, are carried to the TTF burn pan by hand.

All spills on the ground or on the TTF will be wetted with water using spray hoses. When saturated with water, the explosive waste is stable. The spilled, wet waste can then be wiped

or scooped up and deposited in the burn pan for destruction. Similarly, contaminated soils will be wetted, excavated, and placed in the TTF for treatment.

Once waste is transferred to the burn pan, treatment takes place immediately. In the unlikely event of spillage from the burn pan, waste material will be contained on the steel lined concrete pad. Any precipitation or spillage in the steel lined concrete pad is drained through a filter and settling basin into a 157 gallon catch tank. In addition, no waste material is allowed to remain for extended periods of time in the burn pan, and waste may be repeatedly burned to ensure the complete destruction of explosive materials. Ash and particulate matter that is a residue of the thermal treatment is removed from the burn pan as soon as possible, and the pan is covered between treatments.

Water collected in the catch tank will be containerized if it is suspected to be the result of a release or contaminated with hazardous waste constituents, according to Permit Attachment 1, Waste Analysis Plan. If the catch tank is nearing maximum capacity (157 gallons) and the water is not suspected of being derived from the treatment of hazardous waste, the water will be discharged to the City of Albuquerque sewer treatment system.

Exposure of humans or environmental receptors to hazardous waste or hazardous constituents via the ground water is unlikely. This conclusion is supported by the following considerations:

- The maximum volume of waste to be treated during any burn event is limited.
- **The burn pan is situated on a steel lined concrete pad with a four inch curb which serves as secondary containment.**
- Additional containment in the form of a catch tank is provided.
- Depth to ground water in the vicinity of the TTF is approximately 500 feet (150 meters) below the ground surface.
- The nearest location of ground water withdrawal is greater than 2 miles (3 kilometers) away from the TTF, and the nearest major body of surface water (the Rio Grande) is situated approximately 6 miles (10 kilometers) to the west of the TTF.
- The mean annual moisture deficit or net recharge (evapotranspiration minus precipitation) is approximately 14 inches (36 centimeters) (SNL/NM, 1992b),

limiting the potential for contaminants in solid material to leach to the water table.

1.5.2 Protection of Surface Water, Wetlands, and Soil Surface

Exposure of humans or environmental receptors to hazardous waste or hazardous constituents via surface water, wetlands, or the soil surface is unlikely. This conclusion is supported by the following considerations:

- The maximum volume of waste to be treated during any burn event is limited.
- The TTF is approximately 6 miles (10 kilometers) from the Rio Grande.
- The burn pan is situated on a steel lined concrete pad with a four inch curb which serves as secondary containment.
- Additional containment in the form of a catch tank is provided.

This supports the conclusion that the potential for adverse effects to human health or the environment via surface water, wetlands, or soil surface pathways is implausible.

1.5.3 Protection of the Atmosphere

The TTF will burn limited quantities of explosive wastes and contaminated explosive wastes. The waste may be burned several times to complete the destruction of any explosives. The burns may, therefore, occur over two or three days. Each burn will last a minimum of 30 minutes. The sequence of burns is typically:

- Burning the contents of the burn pan until 30 minutes after audible or visual evidence of explosives has ceased.
- Inspecting the contents of the burn pan to ensure no liquids remain and all pan contents are ashed. Reburn if necessary.

The principle by-products of decomposition of waste listed in Permit Attachment 1, are ash (carbon) and gases. Gases consist primarily of nitrogen, water vapor, carbon dioxide, carbon monoxide, sulfur dioxide, diatomic oxygen, and traces of nitrous oxides.

The TTF is subject to the regulations of the ABC/AQCB. Open burning of high explosives is allowed under ABC/AQCR3 when transporting the material would be unnecessarily hazardous. The TTF has been granted a permit for open burning of explosives by the City of

Albuquerque. Treatment will be restricted to the open burning conditions imposed by the most current City of Albuquerque open burn permit (Permit Attachment 10).

The burn pan is equipped with a cover that is lowered over the pan when the TTF is not operating. This engineering control limits the wind dispersal of any ash or particulates remaining in the pan between burns, as does the metal grate enclosing the unit.

CO and NO_x by-products from the TTF appear to have little effect on Albuquerque's air quality. The only contaminant that may migrate from the TTF with the potential to cause adverse effects on human health and the environment is silver in the particulates resulting from the treatment of SASN.

Because the silver discharge from the TTF to the air cannot be measured, a screening-level evaluation of the potential exposure due to pollutant discharge from the TTF has been performed.

The Industrial Source Complex Short-Term Dispersion Model (EPA, 1986) was used to model airborne releases from the TTF. Silver is a key pollutant, although the results apply to any pollutant released at the assumed rate of one gram/second. The following assumptions were used:

- The source is 0.5 square meter in the area at a reference elevation of 0 meter (on the ground).
- Topography was not taken into account because of the open nature of the site.
- National Weather Service data for Albuquerque, New Mexico were utilized.
- The wind direction is toward the receptor of interest.
- Generic meteorological data consisting of 48 combinations of wind speed and stability classes were used to represent typical meteorological conditions during a burn event; a one-hour duration was arbitrarily assigned to each of the 48 combinations.
- Thermal buoyancy of the plume arising from the TTF operation is ignored.

The last three assumptions assure a conservative result when concentrations are calculated at the various receptors. The receptor distances were selected to reflect actual site conditions. Key receptors in the area of the TTF are:

- The McCormick Ranch (unoccupied); nearest structure outside the SNL/NM, Albuquerque, property (4,300 meters, 227°, southwest of site)
- Nearest base housing (5,670 meters, 344°, north northwest of site)
- Nearest housing to the west; i.e., the most frequent downwind direction (11,200 meters, 270°, west of site)
- Nearest structure on the west (may or may not be residential) (30,000 feet [9,500 meters], 270°, west of site)
- Nearest sensitive population; Veterans Administration Hospital (23,000 feet [7,000 meters], 329°, northwest of site).

Table 1 lists the one-hour average concentrations for silver calculated using the assumptions stated above.

The Occupational Exposure Limit (or Threshold Limit Value Time Weighted Average) for silver is 100 $\mu g/m^3$. The calculated concentrations are well within this value even at the nearest receptor utilizing the very high emission rate of one gram/second and other conservative assumptions. In reality, the total quantity of silver in 4 liters of slurry would not sustain an emission rate of 1 gram/second over a one-hour span; if all the silver became airborne, the calculated concentration at 14,000 feet (4,300 meters) would be less than 10 $\mu g/m^3$. These hypothetical airborne silver concentrations from the TTF are unlikely to result in heavy metals concentrations in suspended particulates exceeding State limits for the 30-day average (10 grams per cubic meter).

Wind may be significant during burn operations and during cool down, when gases, particulates, and ash may be dispersed. The earthen berms surrounding the TTF are designed primarily to reduce the effects of wind on the burning operation and to limit ash dispersal. The slab and cage enclosure are designed to collect most material that may escape the burn pan due to wind.

Table 1

Calculated Silver Concentrations at Selected Distances from the Thermal Treatment Facility

Distance (meters)	One-Hour Average Silver Concentration[a] ($\mu g/m^3$)[b]
4,300	44.3
5,670	30.4
7,000	22.8
9,500	15.3
11,200	12.3

[a]Calculated using the Industrial Source Code Short-Term Dispersion Model (EPA, 1986), assuming a release rate of 1 gram per second.
[b]$\mu g/m^3$ = micrograms per cubic meter.

During the 1986 modification of the TTF, discolored (blackened) soils were collected from around the facility to test the extent of contamination due to dispersal of particulates and ash from the facility. Silver was not detected (<0.01 micrograms per kilogram) in any of the three soil samples using the U.S. Environmental Protection Agency Extraction Procedure Toxicity Test (NMHWMR-7/Pt. II, Appendix II) (Table 2). This indicates no consequences of the minor dispersal of ash from past activities at the TTF. Modifications to the TTF, including the slab and catch tank filter, further limit any consequences of the TTF operation.

1.5.4 Monitoring, Inspection, and Reporting

The following section describes SNL/NM activities that are undertaken to satisfy the regulatory requirements in NMHWMR-7, Pt. V, §§264.601 and 264.602. There are no monitoring stations at the TTF. Data from the stations closest to the TTF will be used to demonstrate compliance with environmental monitoring requirements.

Table 2

Summary of Soil Analytical Results Prior to
Thermal Treatment Facility Design Modifications
September 1986

Sample Identification	Sample Matrix	EP[a] Toxicity Silver (μg/kg)[b]
HW108	Soil	ND[c] < 0.01
HW109	Soil	ND < 0.01
HW110	Soil	ND < 0.01

[a]EP = Extraction Procedure.
[b]μg/kg = micrograms per kilogram.
[c]ND = Not detected; the method detection limit is the amount stated in the table above.

1.5.4.1 Monitoring

Ground Water Monitoring—See Permit Attachment 11.

Environmental Monitoring Program—SNL/NM collects data from routine environmental surveillance activities on an ongoing basis. The results of the activities are provided in annual environmental monitoring reports. Contamination attributable to the TTF has not been detected during environmental monitoring activities at SNL/NM.

1.5.4.2 Inspection

As required in NMHWMR-7, Pt. V, §§264.15 and 264.33, the TTF and associated systems are inspected on a regular basis and in accordance with procedures to assure their integrity, maintenance, and safe operation. Inspections focus on identifying malfunctions, signs of deterioration, operator errors, and discharges or spills. Inspections are undertaken on a regular schedule based on the likelihood of component failure and associated consequences.

Section 5.0 of this permit application describes the inspection program at the TTF. Safety and emergency equipment, security devices, and operating and structural equipment related to explosive hazardous waste management activities are inspected to ensure that human health and the environment will be protected.

1.5.4.3 Recordkeeping and Reporting

The following records are maintained by Department 7057 Environmental Programs Record Center for the TTF:

- Operating log that describes the type and quantity of hazardous waste treated in the TTF and the date the waste was burned
- Notification of contaminated wastewater discharged into the City of Albuquerque sewer treatment system.
- Reports of any incidents that required the activation of the Contingency Plan
- Inspection logs for the last three years
- Records of any corrective actions taken to prevent or mitigate releases of hazardous waste to the environment
- Training records for TTF personnel
- Disposal requests for hazardous waste transported to the HWMF
- Correspondence and other documents from governmental agencies that affect the TTF.

Biennial Report—In accordance with NMHWMR-7, Pt. V, §264.75, a biennial report on facility activities will be prepared and submitted to the Secretary of the New Mexico Environment Department (NMED) and to the Administrator, U.S. Environmental Protection Agency (EPA) Region VI. The report will be prepared and submitted to cover facility activities during the previous two years. The EPA identification number, name, and address of the facility will be included in the report. A description and the quantity of each RCRA-regulated explosive hazardous waste treated at the TTF will be listed. The method of treatment and disposal for each RCRA-regulated explosive hazardous waste will be described.

Additional Reports—In compliance with NMHWMR-7, Pt. V, §264.56(j), and NMHWMR-7, Pt. VI, §265.56(j), any release, fire, explosion, or other unusual occurrence that results in the

implementation of the contingency plan will be noted in the TTF operating record and reported in writing within 15 days to the Secretary of the NMED and the Administrator of EPA Region VI.

No corrective actions for solid waste management units (SWMU) as described in NMHWMR-7, Pt. V, §264.101, are necessary for the site. Final closure of the site will be reported within 60 days of completion in accordance with NMHWMR-7, Pt. V, §264.115, and as described in Permit Attachment 7.

ATTACHMENT 10

PART A APPLICATION
for the

SANDIA NATIONAL LABORATORY

THERMAL TREATMENT FACILITY

SANDIA NATIONAL LABORATORY
DEPARTMENT 7042
ALBUQUERQUE, NEW MEXICO

JUNE 14, 1993

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

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

November 1, 1995

Filed separately

Mr. Michael Zamorski
Acting Area Manager
Kirtland Area Office
US Department of Energy
P.O. Box 5400
Albuquerque, New Mexico 87185-5400

Dear Mr. Zamorski:

We have received the revised Resource Conservation and Recovery Act (RCRA) Part A permit application, dated May 1995. This revision increases the volume of two waste streams, D011 and D040, and is submitted as required in Permit Condition III.G.2. of the approved RCRA permit for the Sandia National Laboratories/New Mexico Hazardous Waste Management Facility.

The May 1995 revision is approved and replaces the Part A permit applications contained in Attachment G of the approved RCRA permit for the hazardous waste management facility, Permit No. NM5890110518-1, and in Attachment 10 of the approved RCRA permit for the thermal treatment facility, Permit No. NM5890110518-2.

Please call Stephanie Kruse of my staff at 827-1561 if you have any questions or comments.

Sincerely,

Barbara Hoditschek

Barbara Hoditschek, Manager
RCRA Permits Program

xc: Sue Umshler, DOE
David Neleigh, EPA
SNL red file - 95
Reading file

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

EPA Regional Use Only		For State Use Only
Date Received Month Day Year	United States Environmental Protection Agency Washington, DC 20460 **Hazardous Waste Permit Application** **Part A** *(Read the Instructions before starting)*	

I. ID Number(s)

A. EPA ID Number	B. Secondary ID Number *(if applicable)*
NM5890110518	

II. Name of Facility

SANDIA NATIONAL LABORATORIES

III. Facility Location ***(Physical address not P.O. Box or Route Number)***

A. Street	
1515 FUBANK SE	
Street *(continued)*	
City or Town	State / ZIP Code
ALBUQUERQUE	NM 87123 -
County Code *(if known)*	County Name
	BERNALILLO

B. Land Type	C. Geographic Location		D. Facility Existence Date
(enter code)	*LATITUDE (degrees, minutes, & seconds)*	*LONGITUDE (degrees, minutes, & seconds)*	Month Day Year
F	35 01 45 N	106 32 30 W	09 1945

IV. Facility Mailing Address

Street or P.O. Box	
PO BOX 5400 KAO	
City or Town	State / ZIP Code
ALBUQUERQUE	NM 87185 -

V. Facility Contact ***(Person to be contacted regarding waste activities at facility)***

Name *(last)*	*(first)*
CARLSON	KATHLEEN
Job Title	**Phone Number** *(area code and number)*
MANAGER KAO	505 - 845 - 4094

VI. Facility Contact Address ***(See instructions)***

A. Contact Address Location	Mailing	B. Street or P.O. Box
	X	PO BOX 5400

City or Town	State / ZIP Code
ALBUQUERQUE	NM 87185 -

Item X. Other Environmental Permits (Continued)

Permit Type	Permit Number	Description
E	DP-530	New Mexico Water Quality Act Discharge
E	DP-771	New Mexico Water Quality Act Discharge

Please print or type in the ELITE type (12 characters per inch) in the unshaded areas only

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
X M 5 8 9 0 1 1 0 5 1 8	

XII. Process - Codes and Design Capacities (continued)

EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

Line Number		A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBER OF UNITS	FOR OFFICIAL USE ONLY
X	1	S 0 2	600	G	0 0 2	
X	2	T 0 3	20	E	0 0 1	
	1	S 0 1	264,978	L	0 0 1	
	2	T 0 4	100	V	0 0 1	
	3					
	4					
	5					
	6					
	7					
	8					
	9					
1	0					
1	1					
1	2					

NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.

XIII. Additional Treatment Processes (follow instructions from Item XII)

Line Number (enter numbers in sequence with Item XII)	A. PROCESS CODE	B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. 2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBER OF UNITS	D. DESCRIPTION OF PROCESS
	T 0 4				
	T 0 4				
	T 0 4				
	T 0 4				

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐☐☐

C. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
1	D001	40,000	K	S01			Hazardous Waste
2	D001	6,000	K	S01			Hazardous Waste
3	D002						Included in above
4	D001	1,000	K	S01			Hazardous Waste
5	D002		K	S01			Included in above
6	D003		K	S01			Included in above
7	D001	6,000	K	S01			Hazardous Waste
8	D002						Included in above
9	D008						Included in above
10	D001	3,000	K	S01			Hazardous Waste
11	D003						Included in above
12	D001	1,000	K	S01			Hazardous Waste
13	D003						Included in above
14	D005						Included in above
15	D006						Included in above
16	D007						Included in above
17	D008						Included in above
18	D001	8,000	K	S01			Hazardous Waste
19	D003						Included in above
20	D005						Included in above
21	D007						Included in above
22	D008						Included in above
23	D001	1,000	K	S01			Hazardous Waste
24	D006						Included in above
25	D001	5,000	K	S01			Hazardous Waste
26	D007						Included in above
27	D001	1,000	K	S01			Hazardous Waste
28	D008						Included in above
29	D001	4,000	K	S01			Hazardous Waste
30	D008						Included in above
31	D018						Included in above
32	D001	500	K	S01			Hazardous Waste
33	D008						Included in above
34	D035						Included in above

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D(1))
66	D007						Included in above
67	D008						Included in above
68	D005	4,000	K	S01			Hazardous Waste
69	D008						Included in above
70	D006	10,000	K	S01			Hazardous Waste
71	D006	5,000	K	S01			Hazardous Waste
72	D008						Included in above
73	D007	10,000	K	S01			Hazardous Waste
74	D007	2,000	K	S01			Hazardous Waste
75	D008						Included in above
76	D008	17,000	K	S01			Hazardous Waste
77	D008	3,000	K	S01			Hazardous Waste
78	D018						Included in above
79	D009	7,000	K	S01			Hazardous Waste
80	D010	1,000	K	S01			Hazardous Waste
81	D011	10,000	K	S01			Hazardous Waste
82	D012	50	K	S01			Hazardous Waste
83	D013	50	K	S01			Hazardous Waste
84	D014	50	K	S01			Hazardous Waste
85	D015	50	K	S01			Hazardous Waste
86	D016	50	K	S01			Hazardous Waste
87	D017	50	K	S01			Hazardous Waste
88	D018	7,000	K	S01			Hazardous Waste
89	D019	200	K	S01			Hazardous Waste
90	D020	50	K	S01			Hazardous Waste
91	D021	100	K	S01			Hazardous Waste
92	D022	1,000	K	S01			Hazardous Waste
93	D023	50	K	S01			Hazardous Waste
94	D024	50	K	S01			Hazardous Waste
95	D025	50	K	S01			Hazardous Waste
96	D026	100	K	S01			Hazardous Waste
97	D027	100	K	S01			Hazardous Waste
98	D028	1,000	K	S01			Hazardous Waste
99	D029	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
134	D008						Included in above
135	F002	400	K	S01			Hazardous Waste
136	D019						Included in above
137	D040						Included in above
138	F002	2,000	K	S01			Hazardous Waste
139	D039						Included in above
140	F003	12,000	K	S01			Hazardous Waste
141	F003	10,000	K	S01			Hazardous Waste
142	D001						Included in above
143	F003	10	K	S01			Hazardous Waste
144	D009						Included in above
145	F004	1,000	K	S01			Hazardous Waste
146	F005	12,000	K	S01			Hazardous Waste
147	F005	1,000	K	S01			Hazardous Waste
148	F003						Included in above
149	D001						Included in above
150	D007						Included in above
151	D035						Included in above
152	F005	1,000	K	S01			Hazardous Waste
153	F003						Included in above
154	D001						Included in above
155	D018						Included in above
156	D035						Included in above
157	F005	5,000	K	S01			Hazardous Waste
158	F003						Included in above
159	D001						Included in above
160	F005	500	K	S01			Hazardous Waste
161	F003						Included in above
162	D001						Included in above
163	D035						Included in above
164	F006	100	K	S01			Hazardous Waste
165	F007	2,000	K	S01			Hazardous Waste
166	F007	2,000	K	S01			Hazardous Waste
167	D002						Included in above

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

IV. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
202	P023	10	K	S01			Hazardous Waste
203	P024	10	K	S01			Hazardous Waste
204	P026	10	K	S01			Hazardous Waste
205	P027	10	K	S01			Hazardous Waste
206	P028	10	K	S01			Hazardous Waste
207	P029	1,500	K	S01			Hazardous Waste
208	P030	250	K	S01			Hazardous Waste
209	P031	10	K	S01			Hazardous Waste
210	P033	10	K	S01			Hazardous Waste
211	P034	10	K	S01			Hazardous Waste
212	P036	10	K	S01			Hazardous Waste
213	P037	10	K	S01			Hazardous Waste
214	P038	10	K	S01			Hazardous Waste
215	P039	10	K	S01			Hazardous Waste
[illegible]	P040	10	K	S01			Hazardous Waste
[illegible]7	P041	10	K	S01			Hazardous Waste
218	P042	10	K	S01			Hazardous Waste
219	P043	10	K	S01			Hazardous Waste
220	P044	10	K	S01			Hazardous Waste
221	P045	10	K	S01			Hazardous Waste
222	P046	10	K	S01			Hazardous Waste
223	P047	10	K	S01			Hazardous Waste
224	P048	10	K	S01			Hazardous Waste
225	P049	10	K	S01			Hazardous Waste
226	P050	10	K	S01			Hazardous Waste
227	P051	10	K	S01			Hazardous Waste
228	P054	10	K	S01			Hazardous Waste
229	P056	10	K	S01			Hazardous Waste
230	P057	10	K	S01			Hazardous Waste
231	P058	10	K	S01			Hazardous Waste
232	P059	10	K	S01			Hazardous Waste
233	P060	10	K	S01			Hazardous Waste
[illegible]	P062	10	K	S01			Hazardous Waste
235	P063	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐☐☐

Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
270	P105	10	K	S01			Hazardous Waste
271	P106	1,000	K	S01			Hazardous Waste
272	P108	10	K	S01			Hazardous Waste
273	P109	10	K	S01			Hazardous Waste
274	P110	10	K	S01			Hazardous Waste
275	P111	10	K	S01			Hazardous Waste
276	P112	10	K	S01			Hazardous Waste
277	P113	50	K	S01			Hazardous Waste
278	P114	10	K	S01			Hazardous Waste
279	P115	10	K	S01			Hazardous Waste
280	P116	10	K	S01			Hazardous Waste
281	P118	10	K	S01			Hazardous Waste
282	P119	10	K	S01			Hazardous Waste
283	P120	25	K	S01			Hazardous Waste
284	P121	10	K	S01			Hazardous Waste
285	P122	10	K	S01			Hazardous Waste
286	P123	10	K	S01			Hazardous Waste
287	U001	10	K	S01			Hazardous Waste
288	U002	1,000	K	S01			Hazardous Waste
289	U003	250	K	S01			Hazardous Waste
290	U004	10	K	S01			Hazardous Waste
291	U005	10	K	S01			Hazardous Waste
292	U006	10	K	S01			Hazardous Waste
293	U007	10	K	S01			Hazardous Waste
294	U008	100	K	S01			Hazardous Waste
295	U009	10	K	S01			Hazardous Waste
296	U010	10	K	S01			Hazardous Waste
297	U011	10	K	S01			Hazardous Waste
298	U012	25	K	S01			Hazardous Waste
299	U014	10	K	S01			Hazardous Waste
300	U015	10	K	S01			Hazardous Waste
301	U016	10	K	S01			Hazardous Waste
302	U017	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

V. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
336	U052	25	K	S01			Hazardous Waste
337	U053	10	K	S01			Hazardous Waste
338	U055	25	K	S01			Hazardous Waste
339	U056	250	K	S01			Hazardous Waste
340	U057	25	K	S01			Hazardous Waste
341	U058	10	K	S01			Hazardous Waste
342	U059	10	K	S01			Hazardous Waste
343	U060	10	K	S01			Hazardous Waste
344	U061	10	K	S01			Hazardous Waste
345	U062	10	K	S01			Hazardous Waste
346	U063	10	K	S01			Hazardous Waste
347	U064	10	K	S01			Hazardous Waste
348	U066	10	K	S01			Hazardous Waste
349	U067	25	K	S01			Hazardous Waste
350	U068	10	K	S01			Hazardous Waste
351	U069	100	K	S01			Hazardous Waste
352	U070	50	K	S01			Hazardous Waste
353	U071	10	K	S01			Hazardous Waste
354	U072	10	K	S01			Hazardous Waste
355	U073	10	K	S01			Hazardous Waste
356	U074	10	K	S01			Hazardous Waste
357	U075	200	K	S01			Hazardous Waste
358	U076	10	K	S01			Hazardous Waste
359	U077	200	K	S01			Hazardous Waste
360	U078	50	K	S01			Hazardous Waste
361	U079	50	K	S01			Hazardous Waste
362	U080	1,000	K	S01			Hazardous Waste
363	U081	10	K	S01			Hazardous Waste
364	U082	10	K	S01			Hazardous Waste
365	U083	10	K	S01			Hazardous Waste4
366	U084	10	K	S01			Hazardous Waste
367	U085	10	K	S01			Hazardous Waste
368	U086	10	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1): ☐☐☐☐☐☐☐☐☐☐☐☐

Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
402	U122	500	K	S01			Hazardous Waste
403	U123	35	K	S01			Hazardous Waste
404	U124	10	K	S01			Hazardous Waste
405	U125	10	K	S01			Hazardous Waste
406	U126	10	K	S01			Hazardous Waste
407	U127	10	K	S01			Hazardous Waste
408	U128	10	K	S01			Hazardous Waste
409	U129	10	K	S01			Hazardous Waste
410	U130	10	K	S01			Hazardous Waste
411	U131	50	K	S01			Hazardous Waste
412	U132	25	K	S01			Hazardous Waste
413	U133	250	K	S01			Hazardous Waste
414	U134	2,000	K	S01			Hazardous Waste
415	U134	100	K	S01			Hazardous Waste
416	D002						Included in above
417	U135	75	K	S01			Hazardous Waste
418	U136	10	K	S01			Hazardous Waste
419	U137	10	K	S01			Hazardous Waste
420	U138	10	K	S01			Hazardous Waste
421	U140	50	K	S01			Hazardous Waste
422	U141	10	K	S01			Hazardous Waste
423	U142	10	K	S01			Hazardous Waste
424	U143	10	K	S01			Hazardous Waste
425	U144	300	K	S01			Hazardous Waste
426	U145	10	K	S01			Hazardous Waste
427	U146	10	K	S01			Hazardous Waste
428	U147	100	K	S01			Hazardous Waste
429	U148	10	K	S01			Hazardous Waste
430	U149	10	K	S01			Hazardous Waste
431	U150	10	K	S01			Hazardous Waste
432	U151	1,000	K	S01			Hazardous Waste
433	U151	300	K	S01			Hazardous Waste
434	D002						Included in above
435	U151	100	K	S01			Hazardous Waste

EPA I.D. Number (enter from Page 1): N M 5 8 9 0 1 1 0 5 1 8

Secondary ID Number (enter from Page 1):

X. Description of Hazardous Wastes (Continued)

Line Number	A. EPA Hazardous Waste No. (enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (enter code)	D. Processes (1) Process Codes (enter)			D. Processes (2) Process Description (If a code is not entered in D[1])
470	U186	50	K	S01			Hazardous Waste
471	U187	10	K	S01			Hazardous Waste
472	U188	25	K	S01			Hazardous Waste
473	U189	10	K	S01			Hazardous Waste
474	U190	10	K	S01			Hazardous Waste
475	U191	10	K	S01			Hazardous Waste
476	U192	10	K	S01			Hazardous Waste
477	U193	10	K	S01			Hazardous Waste
478	U194	10	K	S01			Hazardous Waste
479	U196	25	K	S01			Hazardous Waste
480	U197	10	K	S01			Hazardous Waste
481	U200	10	K	S01			Hazardous Waste
482	U201	25	K	S01			Hazardous Waste
483	U202	10	K	S01			Hazardous Waste
484	U203	10	K	S01			Hazardous Waste
485	U204	25	K	S01			Hazardous Waste
486	U205	10	K	S01			Hazardous Waste
487	U206	10	K	S01			Hazardous Waste
488	U207	10	K	S01			Hazardous Waste
489	U208	10	K	S01			Hazardous Waste
490	U209	20	K	S01			Hazardous Waste
491	U210	25	K	S01			Hazardous Waste
492	U211	100	K	S01			Hazardous Waste
493	U213	350	K	S01			Hazardous Waste
494	U214	10	K	S01			Hazardous Waste
495	U215	10	K	S01			Hazardous Waste
496	U216	10	K	S01			Hazardous Waste
497	U217	10	K	S01			Hazardous Waste
498	U218	10	K	S01			Hazardous Waste
499	U219	25	K	S01			Hazardous Waste
500	U220	500	K	S01			Hazardous Waste
501	U221	10	K	S01			Hazardous Waste
502	U222	10	K	S01			Hazardous Waste
503	U223	1,000	K	S01			Hazardous Waste

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
N M 5 8 9 0 1 1 0 5 1 8	

XIV. Description of Hazardous Waste (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.

Line Number	Additional Process Codes (enter)

XV. Map

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature	Date Signed
K A Carlson	6/14/93

Name and Official Title (type or print)

K.A. Carlson, Area Manager, Kirtland Area Office, DOE

Operator Signature	Date Signed
K A Carlson / A N Blackwell 6/15/93	6/14/93

Name and Official Title (type or print)

K.A. Carlson, Kirtland Area Office, DOE

A.N. Blackwell, Acting Vice Pres. Internal Programs 7000, SNL/NM

XIX. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to instructions for more information)

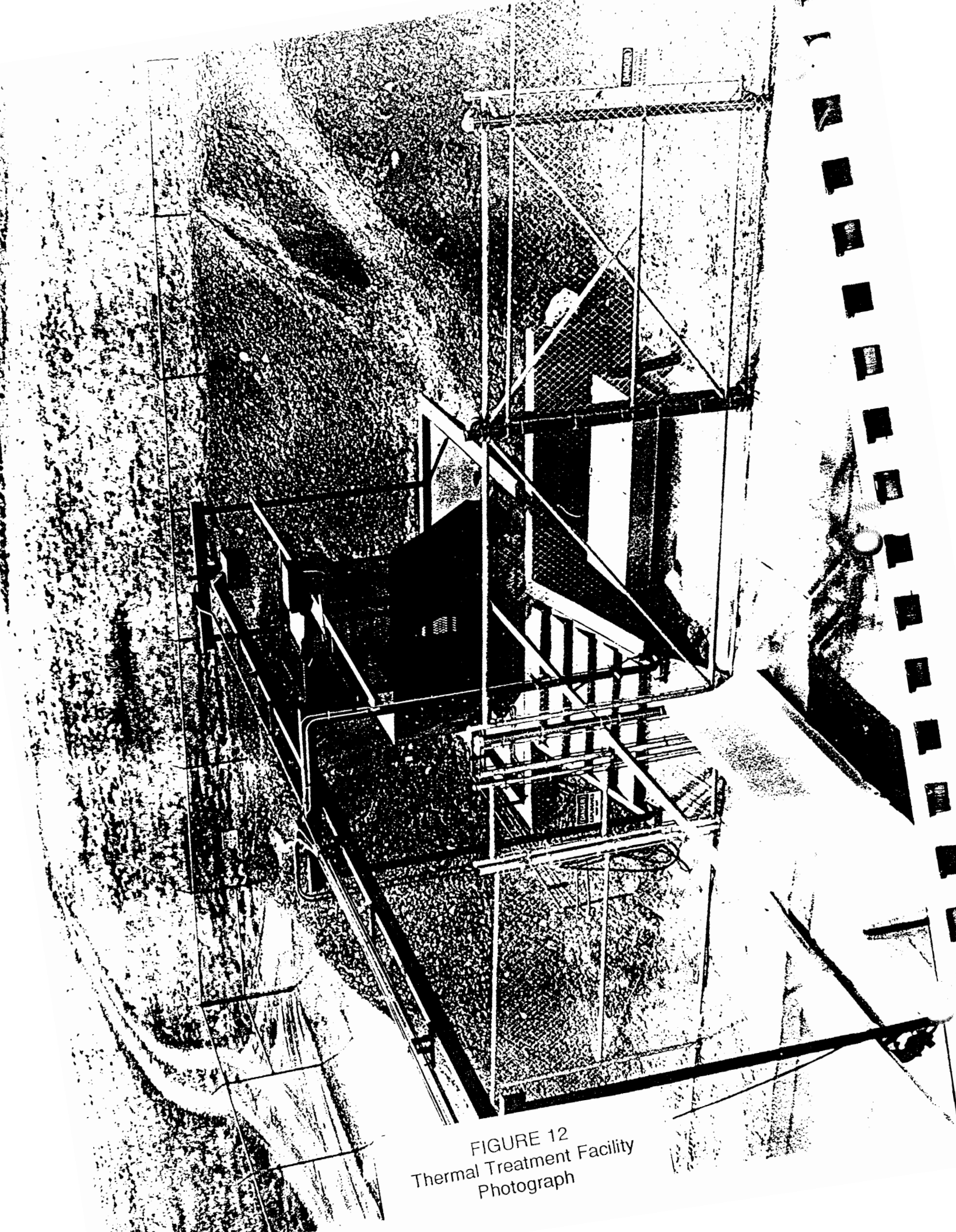

FIGURE 12
Thermal Treatment Facility
Photograph

Barbara
Pls see me on this permit before mailing
11/5/94

ENVIRONMENT DEPARTMENT ROUTING SLIP

~~Letter~~ Permit To: Sandia National Labs

For: Judith Espinosa's SIGNATURE

Drafted By: RCRA Permits (HRMB) 8/22/94 Date

Subject: SNL - TTF

FINAL DECISION NEEDED BY: 26 Aug 94 REASON as stated in letter to SNL

Review:

		Initial	Date Rec'd	Date Apprv'd
B. Hoditschek	PROGRAM MANAGER	BH	8/22	8/22
Benito García	BUREAU CHIEF	BG	8/22	8/23
	DISTRICT MANAGERS			
	GRANTS			
	ACCOUNTING			
	BUDGETS			
Susan McMichael	LEGAL REVIEW	SM	8/22	8/24
	ASD DIRECTOR			
Kathleen Sisneros	WWM DIRECTOR			
	ERD DIRECTOR			
	DEPUTY SECRETARY			
Judith Espinosa	SECRETARY			
	OTHER			
	ADM. SEC.			
	TYPIST			

as 9/27/94 BH
9/26/94 BG

COMMENTS BY DRAFTER OR REVIEWER(S):

8/29/94 Referred back to HRMB for a summary page for Judy

Revised as requested

Passed to drafting. EOP requirement 10/20

MEMORANDUM

TO: Kathleen Sisneros, Division Director

THROUGH: Benito Garcia, HRMB Bureau Chief
Barbara Hoditschek, Program Manager RCRA Permits

FROM: Robert S. (Stu) Dinwiddie

DATE: September 6, 1994

RE: Historical Permit Summary
Permit Perceived Points of Contention

Attached is a summary of the DOE/SNL Thermal Treatment Facility Permit which includes a documentary history and the perceived points of contention for a possible appeal of the permit as finalized.

If you have any questions about the permit, its history, its development or the points of contention please contact me at 827-4308.

PERMIT SUMMARY

DOCUMENTARY HISTORY:

November 17, 1980	Part A Application submitted to EPA for Interim Status did not list the Thermal Treatment Facility or Treatment Process Code T04.
August 11, 1982	EPA issues a notice to SNL for "Conditions of Operations under Interim Status. Thermal Treatment Facility or Treatment Process Code T04 not listed.
October 11, 1983	First Part A Application that indicates the Thermal Treatment Facility or Treatment Process Code T04. This Part A Application does not meet the Trigger Date of November 8, 1980 to achieve Interim Status.
June 1985	Part B Application for SNL Hazardous Waste Permit Version 2.0 has the first description of the Thermal Treatment Facility in a Part B Application. This submittal does not meet the trigger date of November 8, 1984 for Part B Submittal to obtain Interim Status.
April 1991	Part B Application States the Thermal Treatment Facility was built and began operating in 1969. This indicates that the facility was in existence and had to meet the trigger dates mentioned in the October 11, 1983 and June 1985 comments above to obtain interim status. (SNL Part B Application Volume II, Revision 5.0) Statement by SNL that the Thermal Treatment Facility was "substantially modified" in 1986. (SNL Part B Application Volume II, Revision 5.0) Please see the note for the June 1985 document which indicates this statement is incorrect. The Modification actually occurred in 1984.
May 3, 1993	NOD issued on the Part B Application Version 6.0.
June 1993	Part B Application Version 6.1 submitted. This application states that the Thermal Treatment Facility has been in operation since 1970.
June 30, 1993	Notice of completeness issued.

November 8, 1993	Public notice and Draft Permit issued for Public Comment Period which ran from November 15, 1993 through December 30, 1993.
February 25, 1994	Reply to Public Comments on the Draft Permit issued.
March 25, 1994	Meeting requested by DOE/SNL to address the Reply to Public Comments on the Draft Permit. During the meeting it was decided by counsel that a Revised Draft Permit would be issued for Public Comment during which time DOE/SNL would respond to NMED's requirement for analysis in the permit. SNL was to submit a "Revised Waste Analysis Plan" to thoroughly demonstrate the use of Knowledge Of Process.
May 12, 1994	Public Notice for the Revised Draft Permit and the Revised Draft Permit issued for Public Comment. Public Comment Period was from May 15 through June 30, 1994.
August 24, 1994	Thermal treatment Facility Permit forwarded to the Secretary's Office of the New Mexico Environment Department for consideration and signature.
August 26, 1994	Reply to Public Comments on the Revised Draft Permit completed and forwarded to DOE/SNL.

PERCEIVED POINTS OF CONTENTION:

1. DOE/SNL has challenged the States authority to prohibit the burning of radioactive waste, PCBs, and mixed waste at the Thermal Treatment Facility.

   The HRMB, in response to Public Comment from EPA Region VI, added a prohibition against burning radioactive materials, PCBs, and mixed waste. This addition made a non specific condition more specific by not allowing explosives contaminated with these three substances to be burned at the Thermal Treatment Facility.

   Without the addition of this prohibition DOE/SNL would have been permitted to burn explosives, explosive contaminated liquids, and other explosive contaminated waste that had also been contaminated with radioactive nuclides, PCBs or mixed waste.

2. DOE/SNL has objected to the state indicating specific annual quantities for each waste code in Module III. DOE/SNL states that the restatement of quantities is redundant and if required should reflect the quantities listed in the Part A Application.

   The HRMB disagreed with the objection for the following reasons:

   A. The quantities listed in the Part A by DOE/SNL exceeds the design capacity of the Thermal Treatment Facility.

   B. The quantities listed in the Part A by DOE/SNL does not indicate quantities per waste code as required by the Part A Instructions. Without the "estimated annual quantity" for each waste code the permit would then allow DOE/SNL to treat 5,000 kilograms of D003 explosives in a facility designed for 10.4 kilograms per year without having to tell the Secretary of the exceedance as required by 40 CFR.

3. DOE/SNL objects to the State requiring the physical and chemical analysis of the waste to be treated at the Thermal Treatment Facility. DOE/SNL states that analytical methods are not prescribed by SW-846 therefore "Knowledge of Process" applies.

   During the meeting between DOE/SNL and NMED/HRMB on March 25, 1994 it was decided as part of the agreement to issue a Revised Draft Permit for Public Comment Period that DOE/SNL would submit a proper demonstration of "Knowledge of Process" and a "Revised Waste Analysis Plan" addressing this demonstration as part of their "Public Comments" on the Revised Draft Permit.

   DOE/SNL failed to submit the information as outlined in that meeting to properly demonstrate the "Knowledge of Process" in the Revised Waste Analysis Plan submitted with their comments. Therefore no changes were made in the waste analysis plan during finalization of the Permit.

CONFIDENTIAL; SUBJECT TO ATTORNEY-CLIENT PRIVILEGE

Judy

M E M O R A N D U M

TO: Kathy Sisneros, Director, Water & Division

FROM: Susan M. McMichael, Assistant General Counsel

DATE: October 24, 1994

RE: **Sandia National Laboratory- Thermal Treatment Facility Permit**

This permit was revised a final time by staff to allow for knowledge of process as an approved sustitute for a chemical and physical waste analysis (Module II-2). Staff determined that KOP was acceptable under these circumstances because the waste is commercial, SNL can verify its origin and small quantities are involved. Staff told SNL as far back as March that KOP would be acceptable. The permit reflects this change and provides that KOP is an approved substitute provided SNL meets certain conditions.

Based upon our conversations with SNL, we do not anticipate an appeal from this permit decision.

KOP = Knowledge of Process

MEMORANDUM TO FILE
SNL TTF PERMIT

The following discrepancies were noted during the preparation of the Sandia National Laboratories Thermal Treatment Facility Permit:

The following items are misnumbered in the Waste Analysis Plan (WAP):

Figure 2-1 is referred to in section 1.0 Paragraph 1 of Attachment 1 (WAP) Line 7. Figure 2-1 does not exist, SNL probably intended to site Figure 1.

Figure 2-2 is referred to in the WAP on Page 1-11 in the Screening Section Paragraph 1, line 5. There is no figure 2-2 SNL probably intended to site Figure 2.

The following references to section numbers were made by SNL in the part B Application at the locations indicated. These are nonexistent section numbers in the permit and probably just miss-numbered as were the above figures. An attempt to satisfactorily link these sections with existing section numbers could not be made.

Attachment 1:

Page 1-1 Section 1.1 Line 1 reference to Section 3.3.3
Line 2 reference made to Section 3.3.2

Page 1-3 Section 1.2 Paragraph 3 Line 1 & 3 reference made to Section 3.4.

Page 1-5 Section "Reactive Compounds" Line 2 reference made to Section 2.3.1.

Page 1-6 Section 1.3.3 Paragraph 2 Line 5 reference made to Section 2.7.

Page 1-9 Section 1.7 Line 2 reference made to Section 2.3.1.
Line 3 reference made to Section 2.3.

Attachment 2:

Page 2-2 Section 1.7 Line 2 reference made to Section 5.1.1.1.
Line 2 reference made to Section 5.1.1.2.

Attachment 3:

Page 3-3 Section 1.3 Line 3 reference made to Section 5.2.

Attachment 4:

Page 4-3 Section 1.1.1 Line 1 reference made to Table 7-1.
Section 1.1.4 Line 2 reference made to Table 7-1.

Page 4-4 Section 1.2 Line 3 reference made to Table 7-1.

Attachment 6:

Page 4 Section 1.2 Paragraph 2 Line 4 reference made to section 2.0.

Page 7 Section "Operations Generating Explosive Hazardous Waste" Paragraph 2 Line 4 reference made to Section 2.7.

Page 9 Section 2.0 Paragraph 3 reference made to Section 5.0.

Attachment 7:

Page 7-5 Section 1.2 Paragraph 3 Line 6 reference made to Table 8-1.

Page 7-7 Section 1.2.1.1 Line 5 reference made to Table 8-1.

Page 7-12 Section 1.3 Paragraph 2 Line 1 reference made to Section 8.2.

Section 1.3 Paragraph 2 Line 2 & 4 reference made to Table 8-1.

Page 7-13 Section 1.3 Paragraph 5 Line 1 reference made to Section 8.2.

Section 1.3 Paragraph 5 Line 2 reference made to Table 8-1.

Section 1.4 Line 1 reference made to Section 8.2.

Page 7-14 Section 1.5.3 Line 4 reference made to Section 8.6.1.

Attachment 9:

Page 9-2 Section 1.1 Line 4 reference to Section 3.3.3. Line 5 reference to Section 3.4.

Page 9-3 Section 1.1.3 Paragraph 2 Line 4 reference made t Section 1.5.

Page 9-6 Section 1.5 reference made to Attachment 2 being "Hazard prevention program" Attachment 2 is the Security Attachment.

Page 9-9 Section 1.5.3 Paragraph 4 reference made to Attachment 10 being the City of Albuquerque open burn permit.

INFORMATION KNOWN TO BE MISSING:

Page 9-12 Section 1.5.4.1 Reference is made to Attachment 11 being the Ground Water Monitoring information. Attachment 11 never has had information about Ground Water Monitoring.

MEMORANDUM OF RECEIPT

I, THOMAS A. VANDENBERG have received, this 12th day of September, 1994, from the New Mexico Environment Department's (NMED) Hazardous and Radioactive Materials Bureau (HRMB) a packet of twenty-seven (27) pages indicating modifications made to the Revised Draft Permit of the Sandia National Laboratories (SNL) Thermal Treatment Facility (TTF).

INVENTORY OF PAGES:

Module I-1 ✓
Module I-2 ✓
Module I-4 ✓
Module I-5 ✓
Module I-6 ✓
Module I-7 ✓
Module I-8 ✓
Module II-2 ✓
Module II-3 ✓
Module II-4 ✓
Module II-5 ✓
Module III-1 ✓
Module III-2 ✓
Module III-3 ✓
Module III-4 ✓

4-1 ✓
4-2 ✓
4-3 ✓
4-4 ✓
Training Plan deleted pages (4)
Training Plan inserted pages (1)
5-3 ✓
9-3 ✓
9-4 ✓

This completed memorandum of receipt received by:

Thomas A. Vandenberg DATE: 9-12-94

Issued by Barbara Hoditschek prior to Monday AM Staff meeting

MEMORANDUM

TO: Kathleen Sisneros, Division Director

THROUGH: Benito Garcia, HRMB Bureau Chief
Barbara Hoditschek, Program Manager RCRA Permits

FROM: Robert S. (Stu) Dinwiddie

DATE: September 6, 1994

RE: Historical Permit Summary
Permit Perceived Points of Contention

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June 1985	Part B Application for SNL Hazardous Waste Permit Version 2.0 has the first description of the Thermal Treatment Facility in a Part B Application. This submittal does not meet the trigger date of November 8, 1984 for Part B Submittal to obtain Interim Status.
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   The HRMB disagreed with the objection for the following reasons:

   A. The quantities listed in the Part A by DOE/SNL exceeds the design capacity of the Thermal Treatment Facility.

   B. The quantities listed in the Part A by DOE/SNL does not indicate quantities per waste code as required by the Part A Instructions. Without the "estimated annual quantity" for each waste code the permit would then allow DOE/SNL to treat 5,000 kilograms of D003 explosives in a facility designed for 10.4 kilograms per year without having to tell the Secretary of the exceedance as required by 40 CFR.

3. DOE/SNL objects to the State requiring the physical and chemical analysis of the waste to be treated at the Thermal Treatment Facility. DOE/SNL states that analytical methods are not prescribed by SW-846 therefore "Knowledge of Process" applies.

   During the meeting between DOE/SNL and NMED/HRMB on March 25, 1994 it was decided as part of the agreement to issue a Revised Draft Permit for Public Comment Period that DOE/SNL would submit a proper demonstration of "Knowledge of Process" and a "Revised Waste Analysis Plan" addressing this demonstration as part of their "Public Comments" on the Revised Draft Permit.

   DOE/SNL failed to submit the information as outlined in that meeting to properly demonstrate the "Knowledge of Process" in the Revised Waste Analysis Plan submitted with their comments. Therefore no changes were made in the waste analysis plan during finalization of the Permit.

Department of Energy
Albuquerque Operations Office
Kirtland Area Office
P. O. Box 5400
Albuquerque, New Mexico 87185-5400

OCT 04 1994

RECEIVED
HAZARDOUS WASTE
PROGRAM

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Barbara Hoditschek
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
P.O. Box 26110
525 Camino de los Marquez
Santa Fe, NM 87502

Dear Ms. Hoditschek:

The purpose of this letter is to withdraw one of the comments made in the joint submittal by the Department of Energy and Sandia National Laboratories, New Mexico (SNL/NM) by letter dated, June 29, 1994, regarding the Revised Draft Resource Conservation Recovery Act (RCRA) Part B Permit for the Thermal Treatment Facility, dated May 6, 1994. The Thermal Treatment Facility is located at our SNL/NM facility. The enclosed letter from SNL/NM, dated September 27, 1994, describes the withdrawn comment and our acceptance of the permit language as written in the May 6, 1994 version of this permit.

If you require further information, please call Sue E. Umshler, of my staff, at (505) 845-6671 or Kylene Molley, of SNL/NM, at (505) 848-0484.

Sincerely,

George K. Lasher

for Kathleen A. Carlson
Area Manager

Enclosure

cc w/enclosure:
W. Honker, US EPA, Region VI
S. Dinwiddie, NMED, Santa Fe
R. Dobbs, EPD, AL
T. Pietrok, KAO
M. Williams, WMOSD, AL
J. Chavez, OCC, AL

Printed on recycled paper

cc w/o enclosure:
T. Blejwas, 7500, SNL, MS 1315
E. Conway, 7571, SNL, MS 1310
S. Ward, 7511, SNL, MS 1311
J. Guth, 7573, SNL, MS 1303
K. Molley, 7573, SNL, MS 1303
T. Vandenberg, 11300, SNL, MS 0142

Sandia National Laboratories

Thomas E. Blejwas
Director, Environmental Operations Center

Telephone: (505)848-0905
FAX: (505)848-0918

Managed and Operated by Sandia Corporation
a subsidiary of Martin Marietta Corporation

P.O. Box 5800
Albuquerque, New Mexico 87185-1315

SEP 27 1994

Kathleen A. Carlson
Area Manager
Kirtland Area Office
Department of Energy
P.O. Box 5400
Albuquerque NM 87115

Dear Ms. Carlson:

Subject: Comments for the DOE/SNL Thermal Treatment Facility

SNL is withdrawing one of the comments regarding the revised draft permit for the DOE/SNL Thermal Treatment Facility that was submitted to New Mexico Environment Department (NMED) through your office in a letter from Thomas E. Blejwas to Kathleen A. Carlson dated June 27, 1994. The comment that SNL is withdrawing read as follows: "Delete 'This immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval.' (Section II.J.3)." As agreed by NMED, Section II.J.3 in its entirety will now read "The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-7, Part V, 40 CFR 264.54. In the event of an emergency, this immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval." Please transmit this withdrawal to NMED as soon as possible. Please contact Kylene J. Molley at 848-0484 if you have any questions or comments.

Sincerely,

D L Stemer for
TE. BLEJWAS
94.09.27

MEMORANDUM TO FILE
SNL TTF PERMIT

The following discrepancies were noted during the preparation of the Sandia National Laboratories Thermal Treatment Facility Permit:

The following items are misnumbered in the Waste Analysis Plan (WAP):

Figure 2-1 is referred to in section 1.0 Paragraph 1 of Attachment 1 (WAP) Line 7. Figure 2-1 does not exist, SNL probably intended to site Figure 1.

Figure 2-2 is referred to in the WAP on Page 1-11 in the Screening Section Paragraph 1, line 5. There is no figure 2-2 SNL probably intended to site Figure 2.

The following references to section numbers were made by SNL in the part B Application at the locations indicated. These are nonexistent section numbers in the permit and probably just miss-numbered as were the above figures. An attempt to satisfactorily link these sections with existing section numbers could not be made.

Attachment 1:

Page 1-1 Section 1.1 Line 1 reference to Section 3.3.3
Line 2 reference made to Section 3.3.2

Page 1-3 Section 1.2 Paragraph 3 Line 1 & 3 reference made to Section 3.4.

Page 1-5 Section "Reactive Compounds" Line 2 reference made to Section 2.3.1.

Page 1-6 Section 1.3.3 Paragraph 2 Line 5 reference made to Section 2.7.

Page 1-9 Section 1.7 Line 2 reference made to Section 2.3.1.
Line 3 reference made to Section 2.3.

Attachment 2:

Page 2-2 Section 1.7 Line 2 reference made to Section 5.1.1.1.
Line 2 reference made to Section 5.1.1.2.

Attachment 3:

Page 3-3 Section 1.3 Line 3 reference made to Section 5.2.

Attachment 4:

Page 4-3 Section 1.1.1 Line 1 reference made to Table 7-1.
Section 1.1.4 Line 2 reference made to Table 7-1.

Page 4-4 Section 1.2 Line 3 reference made to Table 7-1.

Attachment 6:

Page 4 Section 1.2 Paragraph 2 Line 4 reference made to section 2.0.

Page 7 Section "Operations Generating Explosive Hazardous Waste" Paragraph 2 Line 4 reference made to Section 2.7.

Page 9 Section 2.0 Paragraph 3 reference made to Section 5.0.

Attachment 7:

Page 7-5 Section 1.2 Paragraph 3 Line 6 reference made to Table 8-1.

Page 7-7 Section 1.2.1.1 Line 5 reference made to Table 8-1.

Page 7-12 Section 1.3 Paragraph 2 Line 1 reference made to Section 8.2.

Section 1.3 Paragraph 2 Line 2 & 4 reference made to Table 8-1.

Page 7-13 Section 1.3 Paragraph 5 Line 1 reference made to Section 8.2.

Section 1.3 Paragraph 5 Line 2 reference made to Table 8-1.

Section 1.4 Line 1 reference made to Section 8.2.

Page 7-14 Section 1.5.3 Line 4 reference made to Section 8.6.1.

Attachment 9:

Page 9-2 Section 1.1 Line 4 reference to Section 3.3.3. Line 5 reference to Section 3.4.

Page 9-3 Section 1.1.3 Paragraph 2 Line 4 reference made t Section 1.5.

Page 9-6 Section 1.5 reference made to Attachment 2 being "Hazard prevention program" Attachment 2 is the Security Attachment.

Page 9-9 Section 1.5.3 Paragraph 4 reference made to Attachment 10 being the City of Albuquerque open burn permit.

INFORMATION KNOWN TO BE MISSING:

Page 9-12 Section 1.5.4.1 Reference is made to Attachment 11 being the Ground Water Monitoring information. Attachment 11 never has had information about Ground Water Monitoring.

State of New Mexico
ENVIRONMENT DEPARTMENT
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-2850

CE KING
VERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

FAX COVER SHEET

ATE: 6 Sep'94 / 9 Sep 94

O: Sue Umstler / Tom Vandenberg

OMPANY: DOE/SNL

AX NO. 845-4710 End of Xmit 3:50 DLO

ELEPHONE

essage: Here are the missing pages. Re transmitted 9-9-94 just in case you do not make it

ROM: Sh NO OF PAGES ~~30~~ 29
(including cover)

OMPANY: NM ENVIRONMENT DEPARTMENT-HAZARDOUS & RADIOACTIVE MATERIALS BUREAU

AX: (505) 827-4361

ELEPHONE: (505) 827-4358

MODULE I

GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to treat and/or containerize for disposal ~~dispose of on-site~~ hazardous waste in accordance with the conditions of this Permit. Any treatment and/or containerization for disposal ~~dispose~~ of hazardous waste not authorized in this Permit is prohibited. Subject to Hazardous Waste Management Regulation (HWMR-7) Part IX, 40 CFR §270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Act), (Sections 74-4-1 et. seq. NMSA 1979, as amended, 1989). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the Act, or any other law providing for protection of public health or the environment. [HWMR-7, Part IX, 40 CFR §270.4 and §270.30(g)]

B. PERMIT ACTIONS

1. Permit Modification, Revocation and Reissuance, and Termination

   This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-7, Part IX, 40 CFR §270.41, §270.42, and §270.43. The filing of a request for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit condition. [HWMR-7, Part IX, 40 CFR §270.4(a) and §270.30(f)]

2. Permit Renewal

   This Permit may be renewed as specified in HWMR-7, Part IX, 40 CFR §270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [HWMR-7, Part IX, 40 CFR §270.30(b)]

C. SEVERABILITY

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

D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in HWMR-7, Parts I, V, VII, VIII, and IX, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

"facility" as used in this permit shall refer to the Thermal Treatment Facility unless otherwise specified by being followed by "(SNL/NM)".

"immediate" means acting or being without the intervention of another object, cause, or agency: Made or done at once.

"Secretary" means the Secretary of New Mexico Environment Department, or his/her designee or authorized representative.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of the Permit and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [HWMR-7, Part IX, 40 CFR §270.30(a)]

2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. [HWMR-7, Part IX, 40 CFR §270.10(h) and §270.30(b)]

7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. [HWMR-7, Part IX, 40 CFR §264.74(a) and §270.30(h)]

a. SNL will submit to the Secretary a Revised Part A Application that has been properly completed. This will include the correct design capacity and an estimated annual quantity for each waste code entered in Column A. This submittal shall be made within 10 days of the receipt of the NMED response to Public Comments on the Revised Draft Permit. The revised Part A Application will be received, reviewed and made a part of this permit before the permit becomes effective.

8. Inspection and Entry

Pursuant to HWMR-7, Part IX, 40 CFR §270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location. The permittee will be provided with the opportunity to request or obtain split or duplicate samples for Quality Assurance or Quality Control purposes.

9. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of HWMR-7, Part II, 40 CFR Part §261 or an equivalent method approved by the Secretary. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846, Standard Methods of Wastewater Analysis, or an equivalent method, as specified in the Waste Analysis Plan (See Permit Attachment 1). [HWMR-7, Part IX, 40 CFR §270.30(j)(1)]

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by HWMR-7, Part V, 40 CFR §264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. The Permittee shall maintain records from all ground-water monitoring wells installed to detect releases from the TTF and associated ground-water surface elevations for the active life of the facility. [HWMR-7, Part V, 40 CFR §264.74(b) and §270.30(j)(2)]

c. Pursuant to HWMR-7, Part IX, 40 CFR §270.30(j)(3), records of monitoring information shall specify:

i. The dates, exact place, and times of sampling or measurements;

ii. The individuals who performed the sampling or measurements;

iii. The dates analyses were performed;

iv. The individuals who performed the analyses;

v. The analytical techniques or methods used; and

vi. The results of such analyses.

10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the Permitted facility. ~~Any significant changes~~ Class I, Class II, or Class III Modifications require the Secretary's approval prior to implementation. [HWMR-7, Part IX, 40 CFR §270.30(l)(1)]

11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [HWMR-7, Part IX, 40 CFR §270.30(l)(2)]

12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-7, Part IX, 40 CFR §270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-7, Part V, 40 CFR §264 and Part IX, 40 CFR §270 and this Permit. [HWMR-7, Part IX, 40 CFR §270.30(l)(3) and §264.12(c)]

13. Twenty-Four Hour Reporting

a. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the ~~hazardous waste management facility~~ ~~Thermal Treatment Facility~~ which could threaten the environment or human health outside the facility.

b. The description of the occurrence and its cause shall include:

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the facility (SNL/NM);

iii. Date, time, and type of incident;

iv. Name and quantity of materials involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Secretary may waive the five-day written notice requirement in favor of a written report within 15 days. [HWMR-7, Part IX, 40 CFR §270.30(k)(1)]

14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, Permit Conditions I.E.~~10~~ 1. - 15., at the time monitoring reports are submitted. The reports shall

contain the information listed in Permit Condition I.E. ~~14~~ 13.b [HWMR-7, Part IX, 40 CFR §270.30(l)(10)]

15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information. [HWMR-7, Part IX, 40 CFR §270.30(l)(11)]

F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his/her designee, or authorized representative, shall be signed and certified in accordance with HWMR-7, Part IX, 40 CFR §270.11 and §270.30(k).

G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Secretary should be sent by certified mail or given to:

Program Manager, RCRA Permit Section
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
P.O.Box 26110
Santa Fe, NM 87502

Telephone Number (505) 827-4308
FAX Number (505) 827-4389

H. CONFIDENTIAL INFORMATION

In accordance with HWMR-7, Part IX, 40 CFR §270.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the ~~Facility~~ Thermal Treatment Facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

1. Waste Analysis Plan, as required by HWMR-7, Part V, 40 CFR §264.13 and this Permit.

II.D. SECURITY

The Permittee shall comply with the security provisions of HWMR-7, Part V, 40 CFR 264.14(b)(2) and (c) and Permit Attachment 2. In order to prevent unknowing entry, and minimize the possibility for the unauthorized entry of persons or livestock which may enter the active portion of any hazardous waste unit, the evaporative tank unit and the waste fuel treatment unit will maintain ~~seven foot high,~~ between a seven foot and eight foot high, surrounding chain link fences that will remain locked at all times unless they are being accessed for inspection, maintenance, sampling, treatment, or hazardous waste transfers.

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Permit Attachment 3. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by HWMR-7, Part V, 40 CFR 264.15(c) and 40 CFR 264.602. Records of inspection shall be kept, as required by HWMR-7, Part V, 40 CFR 264.15(d).

II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as described in Permit Attachment 4, as required by HWMR-7, Part V, 40 CFR 264.16. Job descriptions for the Thermal Treatment Facility Personnel are found in Permit Attachment 4A. The training program shall include the instructional elements found in Permit Attachment 4B. The Permittee shall maintain training documents and records, as required by HWMR-7, Part V, 40 CFR 264.16(d) and (e).

II.G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachment 5.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in the Contingency Plan, Permit Attachment ~~6A~~ 6, as required by HWMR-7, Part V, 40 CFR 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-7, Part V, 40 CFR 264.33.

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by HWMR-7, Part V, 40 CFR 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by HWMR-7, Part V, 40 CFR 264.35.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by HWMR-7, Part V, 40 CFR 264.37 and found in Attachment ~~6A~~ 6. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the most current Contingency Plan, Permit Attachment 6, whenever there is a fire, explosion, ~~or~~ release of hazardous waste or constituents outside the treatment unit which could threaten human health or the environment outside the Thermal Treatment Facility. As required by HWMR-7, Part V, and 40 CFR 264.51.

II.J.2. Copies of Plan

The Permittee shall comply with the requirements of HWMR-7, Part V, 40 CFR 264.53.

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by HWMR-7, Part V, 40 CFR 264.54. In the event of an emergency this immediate amending notice will include the type of incident and the reasoning for the requested change(s). The initial notice shall be given by telephone within 24 hours, and written notification within 5 days to the HRMB for approval. Non emergency amendments shall be required (in writing) within fifteen (15) days of the change for NMED review and final approval.

II.J.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-7, Part V, 40 CFR 264.55.

II.K. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

II.K.1. Biennial Report

The Permittee shall comply with the biennial reporting requirements of HWMR-7, Part V, 40 CFR 264.75.

II.L. GENERAL CLOSURE REQUIREMENTS

II.L.1. Performance Standard

The Permittee shall close the current facility, as well as the previous facility (built in 1969 and reconstructed in 1986) which was located at the same site, required by HWMR-7, Part V, 40 CFR 264.111 and in accordance with the Closure Plan, Permit Attachment 7. A specific closure plan is required for each unit. The closure Plan for the Original Thermal Treatment Unit Shal be submitted to the Secretary for approval within 60 days of the effective date of this permit.

II.L.2. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with HWMR-7, Part V, 40 CFR 264.112(c), whenever necessary.

II.L.3. Notification of Closure

The Permittee shall notify the ~~Regional Administrator~~ Secretary in writing at least 45 days prior to the date on which he expects to begin final closure of any of the following: or final closure of the facility, as required by HWMR-7, Part V, 40 CFR 264.112(d).

II.L.4. Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat, remove from the unit or facility, or ~~containerize for disposal dispose~~ of on site all hazardous waste and shall complete closure activities, in accordance with HWMR-7 Part V, 40 CFR 264.113 and the schedules specified in the Closure Plan, Permit Attachment 7.

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by HWMR-7, Part V, 40 CFR 264.114 and the Closure Plan, Permit Attachment 7.

II.L.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-7, Part V, 40 CFR 264.115.

II.M. GENERAL POST-CLOSURE REQUIREMENTS

II.M.1. Post-Closure Care Period

The Permittee will remove or decontaminate the hazardous waste at the unit. Should inadequate removal or decontamination of the site occur, the Permittee will submit a Post-Closure Care Plan to the Secretary within 90 days from the date that the owner or Secretary determines that the hazardous waste management unit must be closed as a landfill. HWMR-7, Part V, 40 CFR 264.118(a).

MODULE III

THERMAL TREATMENT FACILITY

A. Thermal Treatment Facility - Module Highlights

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health an the environment. This module will describe:

Permitted and Prohibited Waste
Design and Operating Requirements
Detection and Monitoring Requirements, and
Requirements for Responses to Releases from the Unit

B. Permitted and Prohibited Waste

1. The Permittee may treat only those reactive wastes specified in Permit Attachment 1. Prohibited hazardous wastes shall include radioactive nuclear waste, PCBs, and mixed waste.

2. Hazardous waste to be treated at the Thermal Treatment Facility shall meet the requirements specified in Attachment 1, Section 1.3.1, Descriptions of Acceptable Waste Categories and Attachment 1, Section 1.4, Boundary Conditions and Process Tolerance Limits. Waste to be treated at the unit shall be screened and verified in ~~according~~ accordance with Permit Attachment 1.

3. The Permittee shall apply for and receive a Permit Modification prior to treating and/or containerizing for disposal ~~disposing of~~ additional types of hazardous waste not identified in Attachment 1.

4. When the amount of any waste handled in a calendar year exceeds the amount listed for the corresponding waste code in the Part A Permit Application, the Permittee shall submit a report explaining the situation to the NMED. If the increase in annual quantities listed in the revised Part A will be used to prepare a new Attachment 1, which will become part of this Permit and/or management practices specified in Permit Attachment 1 change as a result of increase in a new annual quantity, the Permittee shall request a Permit Modification identifying the changes. ~~At present the~~ The Thermal Treatment Facility is limited to the treatment of the following annual quantities of reactive wastes as follows:

a. ~~15 kilograms annually of explosive substances (quantity taken from Part A of the Permit Application.~~ 10.4 kilograms (22.9 pounds) maximum net weight of high explosive substances (D003) DOT hazard class 1.1. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 28.4 grams per burn event times 365 days per year equals 10.5 kilograms. The "Boundary Condition for high explosives is located in Attachment 1, Section 1.4.1.III and incorporated into this permit by Module III, Condition B.2.

b. ~~2,600 gallons annually of other reactive waste. This quantity is calculated by multiplying the Process Design Capacity as listed in Part A of the Permit Application as 10 gallons generated per day by 260 working days a year.~~ 164.25 kilograms (365 pounds) maximum net explosive weight of propellant and pyrotechnics substances (D003)except DOT hazard class 1.1. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 450 grams per burn event times 365 days per year equals 164.25 kilograms. The "Boundary Condition for propellants is located in Attachment 1, Section 1.4.1.IV and incorporated into this permit by Module III, Condition B.2.

c. 2,763 liters (730 gallons) of explosive contaminated liquids (D001, F003, F005). This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. 7.57 liters per burn event times 365 days per year equals 2,763 liters. The "Boundary Condition" for explosive contaminated liquids is located in Attachment 1, Section 1.4.1.V and incorporated into this permit by Module III, Condition B.2.

d. 3,285 kilograms (7,300 pounds) maximum net weight of explosive contaminated substances (D001, D003, D011, F003 and F005) combined as long as the individual "Boundary Condition" quantities specified in a., b. and c. above are not exceeded. This quantity is arrived at by multiplying the "Boundary Condition" set by SNL per burn event at the Thermal Treatment Facility expressed as an annual quantity. Nine (9) kilograms per burn event times 365 days per year equals 3,285 kilograms. The "Boundary Condition for explosive contaminated substances is located in

Attachment 1, Section 1.4.1.IV and incorporated into this permit by Module III, Condition B.2.

5. The Permittee is allowed to treat only hazardous wastes generated at the facility (SNL/NM). The Permittee is not allowed to receive hazardous waste from off-site for treatment at the Thermal Treatment Facility.

C. Design and Operating Requirements

1. The Permittee shall maintain the designed and constructed Thermal Treatment Facility according to the drawings contained in Permit Attachment 8 and the Operational Description contained in Permit Attachment 9.

2. The Permittee shall notify, as required by section I.E.10 of this permit, the Secretary and receive approval prior to making any ~~significant unit changes.~~ Class I, Class II, or Class III Modifications.

3. The Permittee shall operate and maintain the Thermal Treatment Facility in accordance with the operating procedures contained in Permit Attachment 9. "Kickout" or untreated fragments ~~should~~ shall be retreated. If kickout is fully treated particles shall be disposed of at an authorized Waste Management Unit.

4. The Permittee Shall operate and maintain a precipitation cover in accordance with the specifications in and operating practices contained in Permit Attachment 9.

5. The Permittee shall manage accumulated precipitation in accordance with Permit Attachment 9.

6. The Permittee shall operate and maintain the Thermal Treatment Facility in order to minimize air emissions or exposure of people (on-site or off-site) to toxic or hazardous emissions in accordance with Permit Attachment 9 and 10. Additionally the Permittee shall not:

a. operate the Thermal Treatment Facility (burn) except between the hours of ~~9:00~~ 7:00 am and 5:00 pm.

b. operate the Thermal Treatment Facility (burn) when the wind speed is less than 5 miles per hour or greater than 15 miles per hour.

c. operate the Thermal Treatment Facility (burn) when threatening weather is within 10 miles of the TTF. Threatening weather is defined as winds in excess of 35 mph, tornados, electrical storms with or without precipitation of any type, snow storms with a visibility of less than 3/8 ths of a mile, rain with accumulations greater than 3/10 ths of accumulation per hour, any hail, sleet and/or ice storms.

7. Ash/residues from the Thermal Treatment Facility shall be managed in accordance with Permit Attachment 9.

D. Detection and Monitoring Requirements

The Thermal Treatment Facility shall be monitored in accordance with the procedures found in Attachment 9.

E. Requirements for Responses to Releases from the Unit

The Permittee shall respond to releases to ground water, surface water, air, and soil as specified in Permit Attachment ~~9~~ 6.

1.0 Personnel Training

This chapter describes the personnel training program for the TTF in accordance with NMHWMR-7, Pt. V, §264.16, and NMHWMR-7, Pt. IX, §270.14.

The primary objective of the TTF training program is to prepare personnel to operate the TTF in a safe and environmentally sound manner. To achieve this objective, the program provides all employees with training relevant to their positions. Every TTF employee completes initial training within 6 months of employment or assignment to the TTF. TTF personnel are given, at a minimum, a basic understanding of the regulatory requirements in hazardous waste management and emergency procedures. TTF employees receive additional classroom and on-the-job training designed specifically to teach them how to perform their duties safely and in conformance with regulatory requirements. TTF personnel receive the required training before being allowed to work unsupervised.

This chapter describes the introductory and continuing training provided to personnel at the TTF (i.e., Project Leader and TTF Operator) whose actions or failure to act could result in a spill or release or the immediate threat of a spill or release of hazardous waste. These personnel are directly involved with hazardous waste management at the TTF. Their training allows them to operate the facility safely and in compliance with hazardous waste management regulations.

1.1 Outline of the Training Program

Employee training at the TTF is the overall responsibility of TTF Project Leader. All training is conducted by qualified instructors certified by the Environmental, Safety and Health (ES&H) Training Department. Training includes formal classroom sessions, on-the-job training, and review of written procedures and plans. A summary of the training of TTF personnel is shown in Table 4-1. Training Course Outlines for the TTF are found in Attachment 4B. TTF personnel are trained in the following areas:

- Occupational Safety and Health Administration employee rights
- RCRA hazardous waste management facility requirements

- TTF operating procedures, emergency response, and permitted facility requirements

Training records for all facility personnel are kept at the Department 7057 Environmental Programs Record Center. Training records include descriptions, dates, and attendees of each training session.

Table 4-1

Summary of Training for Thermal Treatment Facility Personnel

Title	Length	Frequency	Personnel
Explosives Personnel Safety Course	16 to 24 hours	Initial	Thermal Treatment Facility Operators
Emergency Procedures and Contingency Plan	Variable*	Annual	All
Operating Procedures of the Thermal Treatment Facility	Variable*	Annual	All
Resource Conservation and Recovery Act Training	8 to 24 hours	Initial	Project Leader

* Length of annual trainings total a minimum of eight hours.

✓ A minimum of 24 hours of training of new facility personnel is
✓ conducted within six months after the date of employment or
✓ assignment to the TTF and until the training is completed, the
✓ new personnel work only under the supervision by fully trained

personnel. All facility personnel participate annually in a review of training that totals a minimum of eight hours. Visitors, temporary personnel, and contractors are trained commensurate with the nature of their visit or duties.

1.1.1 Title/Job Description

Table 7-1 provides a list of job titles and training requirements for those positions at the TTF that involve hazardous waste management. Job descriptions are provided in Attachment 4A. In accordance with NMHWMR-7, Pt. V, §264.16(d)(2), the job descriptions include hazardous and waste management job duties, required skills, qualifications, and experience, as well as educational requirements.

A file of all hazardous waste management job titles and job descriptions and a list of employees for each job title are maintained at SNL/NM by the Department ~~7057~~ 7500 Environmental ~~Programs~~ Operations Record Center.

1.1.2 Training Content, Frequency, and Techniques

The TTF training program includes a comprehensive combination of ~~internal~~ classroom training courses and on-the-job training. Each training ~~course~~ session is carefully developed to ensure relevancy of the course objectives and to ensure its support of the goal of safe and environmentally sound operations at the TTF. The training content will include, at a minimum, the topics shown in appendix 4D. Course outlines are maintained by the ES&H Training Department. ~~Generalized course outlines are included as Appendix E.~~

1.1.3 Training Director

The Training Director directs the training program and is responsible for establishing training requirements for TTF personnel. The Training Director is required to be knowledgeable of the applicable hazardous waste regulations and specific process employed at the TTF. The Training Director is the TTF Project Leader.

1.1.4 Relevance of Training to Job Position

The TTF training program provides employees with training relevant to their positions as shown in Table 7-1. The Project

Leader receives hazardous waste management training relevant to his position. TTF personnel receive training in hazardous waste management, TTF operations, and explosive handling.

1.2 Implementation of Training Program

The TTF training program has been implemented to ensure that all hazardous waste management personnel employed at the TTF receive the training indicated in Table 7-1 or equivalent course work. All personnel are trained on the RCRA Contingency Plan through their basic training. All recently hired employees and new hires receive the indicated training within six months of their date of hire or their transfer to a new position. Personnel do not work in unsupervised positions until they successfully complete the indicated training requirements. All hazardous waste management personnel attend annual refresher courses that review the initial training received.

Records relating to the TTF training program for hazardous waste management and emergency response personnel are maintained by the Department 7057 Environmental Programs Record Center located at SNL/NM. These records include the job titles and job descriptions for all hazardous waste management positions; a roster of employees in those positions; a list of courses required for each position; course descriptions; documentation that each employee has received and completed appropriate training; and all of the backup information regarding certification, qualification, and examination. Training records of current personnel are kept until closure of the TTF. Records of former employees are kept for at least three years from the date the employee last worked at the facility.

The training plan and training records for the previous year are maintained at the TTF.

EXPLOSIVES PERSONNEL SAFETY COURSE OUTLINE

Section	Course Topic(s)
1	Introduction Definitions Type of Explosives Chemistry of Explosives
2	Use of Explosives Low Explosives (Propellants)
3	Pyrotechnics and Controlled Burning Rate Detonation Phenomena
4	Types of Tests
5	Igniters and Initiators
6	Linear Products Slapper and Flying Plate Detonators Conical-Shaped Charges
7	Technical Summary and Components
8	Safe Operating Procedures Transportation of Explosives
9	Protective Equipment and Clothing Experiment Assembly
10	Explosives Cleanup Test Area Fire Suppression
11	Testing
12	Laboratory Demonstrations

EMERGENCY PROCEDURES AND CONTINGENCY PLAN

Section	Course Topic(s)
1	Standard Safety Guidelines Site Entry Site Control Personal Protective Equipment
2	Emergency Procedures SNL/NM Emergency Preparedness Plan and Procedures Sector Plan
3	Contingency Plan Implementation Procedures for Using Emergency Equipment Procedures for Shutdown of Operations Response(s) to Emergencies Emergency Coordinator(s) Evacuation Route and Procedures Postemergency Procedures

OPERATING PROCEDURES OF THE THERMAL TREATMENT FACILITY

Section	Course Topics
1	General Overview of Procedures to Perform Operations at the Thermal Treatment Facility
2	Waste Analysis Plan Identification of Waste to be Managed Waste Screening and Verification Facility Operation
3	Safety Practices Security Facility Inspections Preventive Procedures, Structures, and Equipment Prevention of Reaction of Reactive Waste

~~RESOURCE CONSERVATION AND RECOVERY ACT TRAINING~~

~~Section~~	~~Course Topic(s)~~
~~1~~	~~Hazardous Waste Management and Regulations Overview~~
~~2~~	~~Hazardous Substances and Properties~~
~~3~~	~~General Facility Standards~~
~~4~~	~~Preparedness and Prevention~~
~~5~~	~~Contingency Plan and Emergency Procedures~~
~~6~~	~~Recordkeeping and Reporting~~

THERMAL TREATMENT FACILITY TRAINING OUTLINE

Topics to be covered will include, at a minimum, the following:

Emergency Procedures and the TTF Contingency Plan

Contingency Plan Implementation
Personal Protective Equipment
Procedures for Using Emergency Equipment
Procedures for Shutdown of Operations
Response(s) to Emergencies
Emergency Coordinator(s)
Evacuation Route and Procedures
Postemergency Procedures

Operating Procedures of the TTF

Overview of Written Operating Procedures
Overview of Waste Analysis Plan
Safety Practices
Security, Site Entry, and Site Control
Facility Operations
Facility Equipment and Structures
Procedure to Prevent the Reaction of Reactive Waste
Permit Requirements for the TTF

RCRA Training

Overview of Hazardous Waste Management Regulations Applicable to the TTF

1.5 Containers

The containers used to hold explosive hazardous waste qualify as "containers" in accordance with NMHWMR-7, Pt. I, § 260.10: that is, they are "portable devises in which a material is stored, transported, disposed of, or otherwise handled." Solid materials to be treated at the TTF are contained in discrete inner packages. Several small, inner packages may be transported to the TTF within approved outer containers. To ensure that waste is not spilled on the concrete pad, the integrity of the inner waste containers is not compromised at the TTF. Liquid waste containers are not opened until they are on the steel-lined concrete burn pad and the contents are to be poured into the burn pan.

1.6 Container Handling Procedures

Containerized explosive hazardous wastes will be received at the TTF for treatment. The outer containers will be unloaded outside the TTF fence. Inner containers are placed into the burn pan. Waste is not stored at the TTF and is only present during a planned treatment. event. However, if for some reason a treatment event is aborted after the burn pan is loaded with waste, and it is deemed unsafe to remove the waste, the burn pan will be covered with the burn pan lid (remotely), and the waste will remain there until it is possible to perform the treatment or safely remove the waste. The TTF burn pan will provide primary containment. The steel-lined concrete pad serves as secondary containment. If waste is stored at the TTF, all SNL/NM and RCRA requirements for storage of hazardous waste will be met.

Secondary Containment System Design and Operation-The TTF consists of a square steel burn pan with a capacity of approximately ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters).~~ The burn pan sits in the center of a steel lined concrete pad 12 feet 8 inches (3.8 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any liquids collected inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594 liter) catch tank. The TTF is bermed on three sides with earthen berms 8 to 12 feet (2.4 to 3.6 meters) high. The burn pan is the primary containment for the hazardous waste. The steel-lined concrete pad serves as secondary containment for the burn pan. The catch tank serves as tertiary containment.

The upper volume limit of hazardous liquid in the TTF at any time is ~~2 gallons (7.5 liters) 20.8 gallons (78.9 liters)~~. Because of the presence of liquids in the waste, additional containment is provided by the curbed, steel lined concrete pad, with a capacity of approximately 300 gallons (1130 liters) and a catch tank with a capacity of approximately 157 gallons (594 liters).

Containers without Free Liquids-Although most containers of explosive hazardous waste to be treated at the TTF will contain free liquids, they are managed in the same manner as those containing free liquids.

1.1.3 Facility Location, Design, and Construction

The TTF consists of a square burn pan, 29-1/4 inches (~~74~~ 74.3 centimeters) on each side and ~~5-1/2~~ 5-5/8 inches (~~14~~ 14.3 centimeters) deep, constructed of 3/8 inch (1 centimeter) steel. A remotely operated metal lid can be raised to open, or lowered to cover the burn pan. The burn pan is enclosed by grated metal (i.e., open to the air) cage, approximately 4 feet (1.2 meters) on each side and 8 feet (2.4 meters) tall. The roof is nearly solid metal with slots for tracks and cable (figure 1-4). Access to the burn pan is provided through a steel mesh door on the north side of the burn cage which is remotely operated from inside Building 6715. The burn cage sits in the center of a steel lined concrete pad 12 feet 8 inches (~~3.8~~ 3.86 meters) on a side with a 4-inch (10 centimeter) high curb at the perimeter. The steel liner is 1/2 inch (1.27 centimeters) thick. Any water (from precipitation) which collects inside the lined concrete pad is drained through a filter, into a settling basin, and then into a 157-gallon (594-liter) catch tank. The steel lined concrete pad is surrounded on the west, south, and east sides by an earthen berm, approximately 8 feet (~~2.4~~ 2.44 meters) tall. An 8-foot (2.4 2.44 meter) high chain link security fence surrounds the entire TTF. Three gates, located on the north side of the fence, provided access to the TTF.

Releases from the TTF that may be harmful to human health or the environment (i.e., ground water, surface water, or air) are precluded by the location, design, and construction (Figure 1) of the miscellaneous unit. Section 1.5 of this permit application provides information on compliance with the NMHWMR-7, Pt. V, §§264.601 and 264.602.

1.1.3.1 Site Security

The security requirements contained in NMHWMR-7, Part V, §264.14, and NMHWMR-7, Pt. IX, §270.14(b)(4), require that security be provided by 24-hour surveillance <u>or</u> if that requirement cannot be met, a barrier and means to control entry be provided. The TTF has 24-hour security surveillance and means to control entry. In addition, warning signs are provided. The TTF meets the security requirements. These security requirements are described in detail in Permit Attachment 2.

1.1.3.2 Waste Handling Equipment

A peristaltic pump is used to transfer waste liquid contaminated with SASN from Building 6715 into the TTF burn pan and is the only waste handling equipment used at the TTF. Outer containers used to transport reactive explosive waste are hand carried to the TTF. The inner packages are manually removed from the outer containers by trained explosives handlers and then manually