

4.1.93

**PERMIT APPLICATION CHECKLIST FOR RESEARCH, DEVELOPMENT AND DEMONSTRATION (NM PROVISIONAL) 1993**

Facility Name: LANL TA-9  
Project Title: Hydrothermal Processing Unit  
Review Date(s): 4/1/93

TA 09

**COMMENTS,  
LOCATION PAGE IN  
THE APPLICATION,  
NOD, DATE, AND  
OTHER PROBLEMS.**

**SUBMITTED  
Y/N; NA**

**I. GENERAL FACILITY STANDARDS:**

- 1. Name, mailing address and location of the proposed facility  
 [§270.13(b);  270.14(b)(19)] N 1.0 (p1) 2,3 (p3)  
*need latitude + longitude*
- 2. EPA I.D. Number [§264.11] Y 1.0 (p1)
- ?  3. Location standards Y 2.2-2.3 (p3-4)  
 [§264.18;  270.14(b)(11)]  
*ask 55, should we require a detailed map*
- 4. Seismic considerations [§264.18(a)] N  
*ask 55*
- 5. Flood Plan, flood proof description with drawings [§264.18(b)] N  
*ask 55*



Facility Name: LANL  
EPA I.D. No.: NM 0890010515

**SUBMITTED**  
Y/N; NA

**COMMENTS,**  
**LOCATION IN TEXT; NOD...**  
**DATE, OTHER PROBLEMS**

6. Name, address and telephone number of the owner, and operator of the proposed facility. [§270.13(d)(6)] N no telephone # of o/o

7. Purpose of the research, development, and/or demonstration project. [§270.13(a)] Y 2.4 (p4-5)

8. Explanation as to why the proposed activity is experimental and innovative. [§270.65(a)] N

9. General description of the proposed facility and objective statement [§270.13(m); 270.14(b)(1)] Y 2.4 (p4-5)

10. Hazardous waste description and monitoring plan [§264.13(b); (d)(1)(v)] Y 3.1 (p6-7) 3.3 (p9-10)  
Attachment 1

? 11. a. Specification of type and quantity of hazardous waste [§270.13(j)] N 3.1 (p6-7)

*may vary according to the changing research plan, but can stay within the permit application range.*

Facility Name: LANL  
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	<u>SUMMITTED</u> Y/N; NA	<u>COMMENTS,</u> <u>LOCATION IN TEXT, NOD...</u> <u>DATE &amp; OTHER PROBLEMS</u>
<input checked="" type="checkbox"/> b. Physical and Chemical analyses of the hazardous wastes that will be handled at the facility [§270.14(b)(2); §264.13]	<u>Y</u>	<u>3.1 (p6-7)</u> <u>Attachment A, Table A-4</u>
<input checked="" type="checkbox"/> c. Operating <sup>record</sup> procedures [§264.73]	<u>Y</u>	<u>4.0 (p10-15)</u> <u>Attachment 3</u>
<input checked="" type="checkbox"/> d. Monitoring and instrumentation [§270.30(j)]	<u>Y</u>	<u>4.1.3 (p13) 5.4 (p16-18)</u>
<input checked="" type="checkbox"/> e. Parameters to be analyzed for in each waste [§264.13(b)(1)]	<u>N</u>	<u>not clear</u>
<input checked="" type="checkbox"/> f. Process controls i.e. (valves, etc.) [§270.16(i)]	<u>Y</u>	<u>4.0 - 4.1.2 (p10-12) Fig 4</u> <u>Attachment 3 (p12-13)</u>
<input checked="" type="checkbox"/> g. Process monitoring to evaluate efficacy of the process [§264.73(b)(6)]	<u>Y</u>	<u>4.1.3 - 4.1.4 (p13)</u> <u>5.4 (p16-18)</u> <u>Attachment 2</u>

II RESEARCH PLAN:

1. Monitoring and sampling

Facility Name: LANL  
EPA I.D. No.: \_\_\_\_\_

SUBMITTED  
Y/N; NA

COMMENTS,  
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methods and instrumenta-  
tion  
~~§270.30(j)(3)~~ Y 5.4 (p 16-18)

(X)

2. Required form of  
data and statistical  
procedures ~~IV~~  
[§264, Appendix ~~IV~~] N

3. Record keeping and  
reporting requirements  
related to process  
efficiency  
~~§264, Appendix I~~ Y 4.1.3 (p 13) 5.4 (p 16-18)  
7.0 (p 20)

4. Names and qualifications  
of research personnel  
[§264.16](d)(1-2) Y 9.0 (p 24-26)

5. Estimated duration of  
operation for the re-  
search activities Y 11.0 (p 28-29)  
~~§270.14(b)(13)~~  
~~§264.112(b)(7)~~

6. Characterization of any  
residues expected from  
treatment or anticipated  
emissions during treatment  
[§270.13(i)(j)] Y 3.2-3.3 (p 8-10)

Facility Name: \_\_\_\_\_  
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**DATE & OTHER PROBLEMS**

✓ 7. Any information on the anti-  
cipated performance of the  
unit

✓ [§ 270.23(d)] Y 4.1.3 - 4.1.4 (p 13-14)  
Table 1 (p 30)

✓ 8. Process Engineering  
[§ 270.65(a)(3)]

Y 4.1 (p 10-14)

✓ 9. Brief description of per-  
formance data (if any) that may  
have been gathered previously  
on the operation of the unit

✓ [§ 270.14(d)(1)(v)] Y Attachment 4

✓ 10. General dimensions and  
structural description/  
Schematic Flow Chart

✓ [§ 270.14(d)(1)(iii)] Y 4.1 (p 10-11) Fig 3 (p 35) Fig 4 (p 36)  
Attachment 3

✓ 11. Pollution control plan

✓ [§ 270.14(8)(~~iii~~, vi)] Y 4.2 (p 14)  
(b)

**III GENERAL WASTE ANALYSIS:**

✓ a. Experimental design  
and plan [§ 264.31]

✓ [§ 270.23(a)(2)] Y 4.0 (p 10-15)

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

SUBMITTED  
Y/N; NA

COMMENTS,  
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2  
 2. Analytical methods N 3.3 (p 9-10)  
~~§264.13(b)(2); §270.65(b)(2)~~ Attachment 1

3  
 3. Waste Analysis Plan N 3.3 (p 9-10)  
~~§264.13(b)~~ Attachment 1

4  
 4. Type and concentration of waste constituents before, during, and after treatment Y 3.0 (p 6-10)  
~~§270.13(j)~~

5  
 5. Frequency of analysis Y 3.1 (p 7)  
~~§264.13(b)(4)~~

6  
 6. Methods to sample wastes N  
~~§264.13(b)(3)~~

7  
 7. Procedures, equipment type and inspection frequency Y 4.1.3 (p 13) 5.5 (p 18-19)  
~~§270.25(a) (2)(6)~~

**IV DATA QUALITY OBJECTIVES:**

QA/QC PROGRAM [§270.30(e)]

1. Calibration procedures and frequency Y 6.0 (p 19-20)  
Attachment 2  
6

Facility Name: \_\_\_\_\_  
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2. Internal quality control checks     Y     6.0 (p 19-20)

3. Research plan including calibration procedures and internal quality control     Y     6.0 (p 19-20)

4. Intended use of data     Y     2.4 (p 5)     5.0 + 5.1 (p 15)

5. Representative Sampling Plan     Y     5.4 (p 16-18)

6. Statistically sufficient number of samples     N/A     \_\_\_\_\_

7. Media to be sampled     Y     5.4 (p 16-18)

8. Parameters to be analyzed for and the rationale for their selection [§264.13(b)(1)]     Y     5.3 (p 16)

9. Frequency and length of sampling period     Y     5.4 (p 16-18)

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**DATE & OTHER PROBLEMS**

✓ 10. Types of sample (grab?; composite?) Y 5.4.2 (p17)

⊗ 11. Use of reference standards and quality control samples N \_\_\_\_\_

**V. ANALYTICAL PLAN: [§264.13(b)]**

✓ a. Chain-of-Custody Procedures Y Attachment 1

✓ b. Appropriate sample preparation methods Y Attachment 1

⊗ c. Appropriate analytical methods N not specified

⊗ d. Appropriate calibration and analytical procedures \_\_\_\_\_ Attachment 1  
not specified

⊗ e. Data handling (accuracy and precision), review and reporting. N \_\_\_\_\_

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f. Statistical Procedures  
in data evaluation:   N   \_\_\_\_\_

g. Central tendency and  
Dispersion   N   \_\_\_\_\_

h. Measures of variability  
(accuracy, bias,  
precision)   N   \_\_\_\_\_

i. Significance Test (t- Test)   N   \_\_\_\_\_

**VI. SECURITY AND SAFETY PLANS:**

? 1. Security [§264.14] \_\_\_\_\_  
*ask SS from NORA permit?*

? 2. Description of security  
procedures and required  
equipment [§270.14(b)(4)] \_\_\_\_\_

✓ 3. Inspections [§270.14(b)(5);  
§264.15]   Y     5.5 (p 18-19)    
  Attachment 3

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✓ 4. Preparedness and prevention of the spread and recurrence of fires, explosions, or releases  
[§270.14(b)(6); §264.31] Y 8.0 (p20-24)

✓ 5. Required Equipment Y Attachment 6  
and their testing and maintenance [§264.32; §264.33]

✓ 6. Access to communication Y Attachment 6  
or alarm systems [§264.34]

⊗ 7. Required Aisle Space N  
[§264.35]

✓ 8. Contingency plans and Emergency procedures Y Attachment 6  
[§270.14(b)(7)]

✓ 9. Emergency response Y Attachment 6  
[§264.56]

✓ 10. General hazard prevention Y 8.0 (p20-24)  
[§270.14(b)(8)] Attachment 6

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

<u>SUBMITTED</u> Y/N; NA	<u>COMMENTS, LOCATION IN TEXT,</u> <u>NOD, DATE &amp; OTHER PROBLEMS</u>
<del>11.</del> Prevention of ignition or reaction of wastes [§270.14(b)(9)] <u>Y</u>	<u>810 (p 20-24)</u>
<del>12.</del> Purpose and implementation of contingency plan <u>Y</u> [§264.51]	<u>Attachment 6</u>
<del>13.</del> Contents of contingency plan [§264.52] <u>Y</u>	<u>Attachment 6</u>
<del>14.</del> Emergency equipment [§264.52(e)] <u>Y</u>	<u>Attachment 6</u>
<del>15.</del> Copies of contingency plan [§264.53] <u>Y</u>	<u>Attachment 6</u>
<del>16.</del> Amendment of contingency plan [§264.54] <u>Y</u>	<u>Attachment 6</u>
<del>17.</del> Emergency coordinator [§264.55] <u>Y</u>	<u>Attachment 6</u>
<del>18.</del> Emergency procedures [§264.56] <u>Y</u>	<u>Attachment 6</u>

Facility Name: \_\_\_\_\_  
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✓ 19. Identification of hazardous materials Y Attachment 6  
[§264.56(b)]

✓ 20. Precautions for prevention of accidental ignition, reaction or explosion of incompatible hazardous wastes Y 8.0 (p 20-24)  
[§270.9] 9

? 21. Traffic Plan \_\_\_\_\_  
[§270.14(b)(10)]  
*Do we need this?*

✓ 22. Evacuation Plan Y Attachment 6  
[§264.52(f)]

⊗ 23. Description of barrier(s) and means to control entry (24-hour surveillance) [§264.14(b)] N

⊗ 24. Description of warning signs [§264.14(c)] N

✓ 25. Qualifications of safety personnel Y 9.0 (p 25)  
[§264.16(a)(2); (d)(3)]  
2

Facility Name: \_\_\_\_\_  
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SUBMITTED  
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COMMENTS, LOCATION IN TEXT, NOD,  
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26. Arrangements with local authorities  
[\$264.37] Y Attachment 6

**VII. CLOSURE PLAN:**

a. Content of Closure Plan  
[\$264.112(b)] Y 10.0 (p 26-28)

b. Closure Schedule  
[~~§264.112(b)(6)~~, 264.113] Y 10.4 (p 28)

c. Estimated year of final  
closure [264.112(b)(7)] Y 11.0 (p 28-29)

d. Final Disposition of residues or hazardous wastes  
[\$264.112(e)] Y 10.3 (p 27-28)

e. Procedure to decontami-  
nate equipment Y 10.3 (p 27-28)  
[§ 264.112(b)(4)]

f. Time allowed for  
closure [§264.113] Y 10.4 (p 28)

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

SUBMITTED                      COMMENTS, LOCATION IN TEXT, NOD,  
Y/N; NA                              DATE, & OTHER PROBLEMS

~~g.~~ Requirement for written closure  
plan [§264.112(a)]                      Y                      10.0 (p 26-28)

~~h.~~ Description of final  
closure [§264.112(b)(2)]                      Y                      10.0 (p 26-28)

~~i.~~ Maximum inventory of hazardous wastes  
[§264.112(b)(3)]                      Y                      10.2 (p 26)

~~j.~~ Other activities required  
to meet closure standards  
[§264.112(b)(5)]                      Y                      10.0 (p 26-28)

~~k.~~ Amendment of closure plan  
[§264.112(c)]                      Y                      10.3 (p 28)

~~l.~~ Notification of partial  
and final closure  
[§264.112(d)]                      Y                      10.4 (p 28)

~~m.~~ Cost estimate for facility  
closure [§264.142]                      N/A

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

**SUBMITTED      COMMENTS, LOCATION IN TEXT, NOD, DATE,  
AND OTHER PROBLEMS**

n. Certification of closure  
[§264.115] Y      10.4 (p 28)

o. Post-Closure Plan  
[§264.112(a)] N/A

p. Procedures for public participation [§270.65(b)]  
X

q. Removal of hazardous wastes  
and decontamination of equipment,  
structures and soils  
[§264.112]      Y      10.3 (p 27-28)

r. Storage and treatment of released  
materials [§264.56(g)]      Y      10.3 (p 27-28)  
Attachment 6

s. Financial Responsibility  
and assurance for  
closure      N/A  
[§264.142(d)]

t. Liability Coverage for  
sudden accidental  
occurrences  
[§264.147]      N/A

Facility Name: \_\_\_\_\_  
EPA I.D. No. \_\_\_\_\_

	<u>SUBMITTED</u> Y/N; NA	<u>COMMENTS, LOCATION IN TEXT, NOD, DATE &amp; OTHER PROBLEMS</u>
<del>iv.</del> Signatories to the permit application and reports [§ 270.11(a)]	<u>Y</u>	<u>12.0 (p 29)</u>
<del>v.</del> Delisting plan and petition to delist the proposed facility [§260.22]	<u>N/A</u>	_____

**VIII. RECORDKEEPING, REPORTING AND DOCUMENTS TO BE MAINTAINED AT THE FACILITY:**

~~1.~~ Operating Record [§264.73] Y 7.0 (p 20)

(X) 2. Availability, retention, and disposition of records N 7.0 (p 20)  
*incomplete*

~~3.~~ General Waste analysis plan [§264.13(b)] Y 2.3 (p 9-10)

~~4.~~ Personnel training records [§264.16(d)] Y 9.0 (p 24-25)

~~5.~~ Contingency plan [§264.53(a)] Y Attachment 6

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

SUBMITTED  
Y/N; NA

COMMENTS, LOCATION IN TEXT, NOD,  
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~~6.~~ Closure plan and post-closure cost estimates  
[§264.142(d)] Y 10.0 (p 26-28)

~~7.~~ Operating record and log  
[§264.73] Y 7.0 (p 20)

~~8.~~ Notes on wastes received, treated, stored or disposed of  
[§264.73(a)(1)] Y 3.3 (p 10)

(X) 9. Records on locations of hazardous wastes within the facility  
[§264.73(a)(2)] NI 4.3 (p 14-15)

~~10.~~ Waste analysis results  
[§264.73(a)(3)] Y 3.3 (p 10)

~~11.~~ Records of contingency plan implementation  
[§264.73(a)(4)] Y Attachment 4

~~12.~~ Inspection records  
[§264.73(a)(5)] Y 5.5 (p 19)

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

- |  | <u>SUBMITTED</u><br>Y/N; NA | <u>COMMENTS, LOCATION IN TEXT,</u><br><u>NOD, DATE &amp; OTHER PROBLEMS</u> |
|--|-----------------------------|---|
| 13. Ground water monitoring,<br>testing or analytical data<br>[§264.73(a)(6)]                            | _____                       | _____   |
| 14. Notices of permit acquisition<br>and waste acceptance<br>to generators<br>[§264.73 <sup>b</sup> (7)] | N/A                         | _____   |
| - [264.12(b)]  |                             |   |

**IX. MONITORING OF HAZARDOUS WASTES (Including Ground Water):**

- |  |   |                          |
|--|---|--------------------------|
| 1<br>a. Dates, exact place, and<br>time of sampling or<br>measurements [§270.30(j)(3)(i)]    | N | 3.3 (p 10)<br>Appendix 1 |
| 2<br>b. The individuals who performed<br>the sampling or measurements<br>[§270.30(j)(3)(ii)] | N | 3.3 (p 10)<br>Appendix 1 |
| 3<br>c. The dates analyses were<br>performed [§270.30(j)(3)(iii)]                            | N | 3.3 (p 10)<br>Appendix 1 |
| d. The analytical techniques<br>or methods used<br>[§270.30(j)(3)(iv)]                       | N | 3.3 (p 10)<br>Appendix 1 |

Facility Name: \_\_\_\_\_  
EPA I.D. No. \_\_\_\_\_

	<u>SUBMITTED</u> Y/N; NA	<u>COMMENTS, LOCATION IN TEXT, NOD,</u> <u>DATE, &amp; OTHER PROBLEMS</u>
<input checked="" type="checkbox"/> e. The individual(s) who performed the analyses [§270.31(j)(3)(v)] 30	N	3.3 (p10) Appendix 1
<input checked="" type="checkbox"/> f. The results of such analyses [§270.31(j)(3)(vi)] 30	N	3.3 (p10) Appendix 1

**X. GENERAL INSPECTION REQUIREMENTS:**

<input checked="" type="checkbox"/> 1. Inspection schedule [§264.15(b)]	Y	5.5 (p18-19)
<input checked="" type="checkbox"/> 2. Items to be inspected [§264.15(b)(1)]	Y	5.5 (p18-19) Appendix 5
<input checked="" type="checkbox"/> 3. Type of problems for which each item is inspected [§264.15(b)(3)]	Y	Appendix 5
<input checked="" type="checkbox"/> 4. Inspection frequency [§264.15(b)(4)]	Y	5.5 (p18)
<input checked="" type="checkbox"/> 5. Remedial action plan for deteriorated equipment [§264.15(c)]	Y	5.5 (p19) Appendix 6

Facility Name: \_\_\_\_\_  
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~~6.~~ Personnel Training in automatic hazardous waste cut-off, shut down of operations, and imminent danger response  
~~§264.16](a)~~                      Y                      9.0 (p 24 - 26)

**XI.                      RELEASES FROM SOLID WASTE MANAGEMENT UNITS:**

a. Hazardous constituents  
~~§264.93] OK~~                      N                      3.3 (p 9-10)

b. Concentration limits  
~~§264.94] OK~~                      N                      \_\_\_\_\_

? c. Ground- water protection standards ~~§264.92]~~                      \_\_\_\_\_

? d. Detection monitoring program  
~~§264.98]~~                      \_\_\_\_\_

? e. Corrective action program  
~~§264.100]~~                      \_\_\_\_\_

? f. Compliance monitoring program  
~~§264.99]~~                      \_\_\_\_\_

Facility Name: \_\_\_\_\_  
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**XII CHANGES AND MODIFICATIONS TO PERMIT:**

	<u>SUBMITTED</u> Y/N; NA	<u>COMMENTS, LOCATION IN TEXT,</u> <u>NOD, DATE, &amp; OTHER PROBLEMS</u>
? 1. Transfer of permits [ <del>S</del> 270.40]	_____	_____
? 2. Modification or Revocation and reissuance of permits [ <del>S</del> 270.41]	_____	_____
? 3. Permit modification at the request of the permittee [ <del>S</del> 270.42]	_____	_____
? 4. Termination of Permits [ <del>S</del> 270.43]	_____	_____
? 5. Effect of permit [ <del>S</del> 270.4; <del>2</del> 70.30(g)]	_____	_____
? 6. Permit actions [ <del>S</del> 270.30(f)]	_____	_____

**Duties and Requirements:**

? a. Duty to comply [ <del>S</del> 270.30(a)]	_____	_____
--	-------	-------

Facility Name: \_\_\_\_\_  
EPA I.D. No.: \_\_\_\_\_

	<u>SUBMITTED</u> Y/N; NA	<u>COMMENTS, LOCATION IN TEXT, NOD</u> <u>DATE, &amp; OTHER PROBLEMS</u>
? b. Duty to reapply <del>[\$270.30(b)]</del>	_____	_____
? c. Permit expiration <del>[\$270.51]</del>	_____	_____
? d. Need to halt or reduce activity not a defence <del>[\$270.30(c)]</del>	_____	_____
? e. Reporting planned changes <input checked="" type="checkbox"/> [\$270.30(i)(1)]	_____	_____
? f. Compliance Schedules <input checked="" type="checkbox"/> [\$270.30(i)(5)] <input checked="" type="checkbox"/> [\$270.10(h); <del>270.30(b)</del> ] <del>270.33</del>	_____	_____
? g. Inspection and entry by Agency personnel <del>[\$270.30](i)</del>	_____	_____
? h. Protection of Human Health and the Environment <del>[\$270.65]</del>	_____	_____

**NOTES**

**NOTES**