



Permit

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December 1, 2006

Mr. David Cobrain
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Reference: Work Assignment No. 06280.170.0002; State of New Mexico Environment Department, Santa Fe, New Mexico; General Permit Support Contract; Los Alamos National Laboratory Draft Permitting Support (Formatting Permit), Los Alamos, New Mexico; Draft Deliverable Parts 2 and 3

Dear Mr. Cobrain:

Enclosed please find the deliverable for the above-referenced work assignment. The deliverable consists of Parts 2 and 3 of the LANL Permit in a format specified by Mr. Steve Pullen of NMED. A draft copy of this deliverable was e-mailed to you and Steve Pullen at Dave.Cobrain@state.nm.us and Steve.Pullen@state.nm.us on December 1, 2006.

I am sending you the cover letter in a separate file so that the deliverable which is part of the permit can easily be placed into the entire draft permit without having to delete the cover letter.

The document is formatted in Microsoft Word. A formalized hard (paper) copy of this deliverable will be sent vial mail in a few days.

Please feel free to contact me at (303) 464-6525, if you have any questions.

Sincerely,

June K. Dreith
Project Manager



Enclosures

Cc. S. Pullen, NMED
Denver Files

**Los Alamos National Laboratories
Los Alamos, New Mexico**

**Formatting of Draft LANL Permit
Parts 2 and 3**

Submitted to:

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December 1, 2006

1

PART II: GENERAL FACILITY CONDITIONS

2

II.A GENERAL WASTE ANALYSIS

3

II.A.1 Hazardous and Mixed Wastes Managed at LANL under the Permit

4

The following eight general types of hazardous wastes are managed by the Permittees
5 under this Permit:

6

- Hazardous wastes from basic and applied chemistry research and development
7 (R&D) Programs;

7

8

- Hazardous wastes from processing operations;

9

- High explosive wastes;

10

- Waste treatment residues;

11

- Wastes from decontamination and decommissioning projects;

12

- Wastes from environmental restoration activities;

13

- Mixed low-level wastes; and

14

- Mixed transuranic (TRU) wastes.

15

A more detailed description of the hazardous wastes managed under this Permit is
16 provided in the Waste Analysis Plan (WAP) in Attachment ___.

17

II.A.2 Authorized Wastes

18

II.A.2.a Hazardous Wastes from On-Site Sources

19

The Permittees shall only accept, store, treat, or otherwise manage at Permitted Units at
20 the Facility only those hazardous wastes, mixed low-level wastes and mixed TRU wastes
21 bearing the U.S. Environmental Protection Agency (EPA) Hazardous Waste Numbers
22 listed in Attachment I (*Authorized Wastes*)

23

II.A.2.b Hazardous Waste from Off-Site Sources

24

The Permittees shall accept, store, treat or otherwise manage at Permitted Units at the
25 Facility only those hazardous, mixed low-level and mixed TRU wastes from the
26 following off-site sources:

27

- One of the sources listed in Permit Attachment A, Table 2.3, List of Off-Site
28 Waste Management Facilities That May Send Waste to Los Alamos National
29 Laboratory;

28

29

- Hazardous waste generated by the Permittees at TA-57 (SWMU ##, known as
30 the Fenton Hill site); and

30

31

- Hazardous waste generated by the Permittees as a result of investigation or
32 remediation of a SWMU or AOC listed in Permit Attachment A, Table 2.1,
33 *List of Off-Site Release Sites (PRS) and/or Off-Site Solid Waste Management*

32

33

34

Units (SWMU).

35

1 In addition, the hazardous wastes from these authorized off-site sources must be listed in
2 Permit Attachment I (*Authorized Wastes*) and all such wastes must be properly
3 manifested in accordance with Permit Condition 2.14 below.

4 **II.A.3 Prohibited Wastes**

5 **II.A.3.a Hazardous Waste Imports**

6 The Permittees shall not accept, store, treat, or otherwise manage at Permitted Units at
7 the Facility hazardous wastes from foreign sources.

8 **II.A.3.b PCB-Contaminated Waste**

9 The Permittees shall not store liquid hazardous wastes containing polychlorinated
10 biphenyls (PCBs) at concentrations greater than 50 parts per million (ppm) unless such
11 storage is for less than one year from the date the waste is placed in storage and is in
12 compliance with all requirements of 40 CFR § 761.65(b).

13 **II.A.4 Waste Characterization Requirements**

14 The Permittees shall accept, store, treat, or otherwise manage at Permitted Units at the
15 Facility only those hazardous, mixed low-level wastes and mixed TRU wastes that have
16 been fully characterized in accordance with the requirements of 40 CFR § 264.13 this
17 Permit and the WAP in Attachment B. At a minimum, the Permittees must obtain and
18 document all of the information, which must be known to treat, store or otherwise
19 manage a hazardous waste in accordance with 40 CFR Parts 264 and 268.

20 The Permittees shall characterize waste by using current sampling and analysis,
21 acceptable knowledge (AK) or a combination of the two methods.

22 **II.A.4.a Sampling and Analysis for Hazardous Wastes**

23 The Permittees shall perform all sampling and analytical procedures used for waste
24 characterization in accordance with the most recent version of *Test Methods for*
25 *Evaluating Solid Waste, Physical/Chemical Methods*, (U.S. EPA Publication SW-846) or
26 an equivalent method, which has received prior approval from the Department. The
27 Permittees shall perform chemical and physical sampling and analyses for mixed TRU
28 wastes destined for disposal at the Waste Isolation Pilot Plant (WIPP) in accordance with
29 both this Permit and the most recent version of the WIPP Hazardous Waste Facility
30 Permit.

31 The Permittees shall ensure that samples collected and analyzed for waste
32 characterization are representative of both the nature and the entire volume of the waste
33 under consideration.

34 The Permittees shall ensure that the sampling and analytical procedures used to collect a
35 representative sample of a waste preserve its original physical form and composition and
36 ensure prevention of contamination or changes in concentration of the constituents to be

1 analyzed. The Permittees shall conduct a quality assurance program to ensure that
2 sample collection and analytical procedures used to support waste characterization
3 required under this Permit are technically accurate and statistically valid. This quality
4 assurance program must comply with the quality assurance requirements in SW-846.
5 The Permittees shall identify and perform the appropriate number of control samples
6 associated with each sample collected (e.g. trip and field blanks, field duplicates, and
7 field spikes).

8 When performing laboratory analysis the Permittees or the independent laboratory shall
9 analyze the appropriate number of method blanks, laboratory duplicates, and laboratory
10 control samples to assess the quality of the data resulting from laboratory analytical
11 programs. The Permittees shall maintain a record of these quality assurance procedures in
12 the Facility Operating Record in compliance with 40 CFR § 264.73 and Permit
13 Condition.

14 If the Permittees use an independent contract laboratory to perform analyses, the
15 Permittees shall enter into a written contract with the laboratory, which requires the
16 analytical laboratory to operate under the waste analysis conditions set forth in this
17 Permit. Copies of all such contracts with independent contract laboratories shall be kept
18 in the Facility Operating Record.

19 If the Permittees chose to propose an analytical method that deviates from an established
20 method in SW-846, the Permittees must demonstrate and document to the Secretary that
21 the proposed analytical procedure that is equal to or superior to the corresponding method
22 in SW-846 in terms of its sensitivity, accuracy and precision. The Permittees must
23 submit a written request to the Department 90 days prior to using the proposed sampling
24 or analytical procedure, which includes the following information:

- 25 • A statement of the need and justification for the proposed action;
- 26 • A full description of the proposed method (i.e a standard operating
27 procedure), including all procedural steps and equipment used in the method;
- 28 • A description of the types of wastes or waste matrices for which the proposed
29 method may be used;
- 30 • Performance data;
- 31 • Comparative results obtained from using the proposed method with those
32 obtained from using the relevant or corresponding methods prescribed in SW-
33 846 and 40 CFR Parts 261 and 264;
- 34 • An assessment of any factors which may interfere with or limit the use of the
35 proposed method; and
- 36 • A description of the quality control procedures necessary to ensure the
37 sensitivity, accuracy and precision of the proposed method.

38 The Department must issue a written approval of the alternative method before the
39 Permittees may substitute it for an approved method under this Permit.

1 **II.A.4.b Acceptable Knowledge**

2 The Permittees may use AK to characterize waste in lieu of sampling and analysis or to
3 supplement sampling and analysis. The Permittees shall include in the AK documentation
4 all of the background information assembled and used in the characterization process,
5 whether or not the information supports the decision to use AK. The AK record must
6 document the resolution of any data discrepancies between different AK sources.
7 Acceptable knowledge documentation must be maintained in an auditable form in
8 Facility Operating Record for . The Permittees shall assign a traceable
9 identification number to this documentation to facilitate access to this information by the
10 Permittees and NMED.

11 The Permittees shall collect and use AK for mixed TRU wastes destined for disposal at
12 WIPP in accordance with both this Permit and the most recent version of the WIPP
13 Hazardous Waste Facility Permit.

14 **II.A.4.c Wastes Received from Off-Site**

15 As stated in Permit Condition , the Permittees shall only accept wastes from off-site
16 waste generators from the sources listed in . The Permittees shall obtain from the
17 off-site generator a detailed characterization of a representative sample of any hazardous
18 waste received at the Facility, in compliance with 40 CFR § 264.13(c).

19 If AK is used for the waste characterization, the Permittees shall require the generator to
20 provide all AK documentation used to characterize the waste. In addition, the Permittees
21 shall ensure that all applicable waste characterization requirements specified in this
22 Permit Condition have been met and documented.

23 The Permittees shall ensure that the waste matches the identity of the waste designated on
24 the accompanying manifest or shipping paper. If discrepancies between the waste
25 received and the information on the manifest are found, the Permittees shall notify
26 NMED of the discrepancy within five days, and shall return the waste to the off-site
27 generator within 90 days, unless the generator provides an acceptable resolution to the
28 discrepancy within 90 days after receipt of the waste at the Facility.

29 **II.A.4.d Treatment-Derived Waste**

30 The Permittees shall characterize treatment-derived wastes by determining whether the
31 waste is a hazardous waste in compliance with the requirements of this Permit Condition
32 2.4 and in compliance with the notification and record-keeping requirements specified at
33 20.4.1.800 NMAC (incorporating 40 CFR § 268.7(b)(3)(ii)), Treatment Facility
34 Paperwork Requirements Table, Requirement 1).

35 **II.A.5 Waste Characterization Review Requirements**

36 The Permittees shall ensure that the initial characterization of any hazardous waste
37 managed under the Permit waste is reviewed or repeated according to the frequency

1 established in the Permit and the WAP in Attachment to verify that the
2 characterization is accurate and up-to-date in compliance with 40 CFR § 264.13(b)(4).

3 The Permittees shall:

- 4 • Annually re-characterize all hazardous, mixed low-level and mixed TRU
5 wastes managed under this Permit, at a minimum, to verify the accuracy of
6 initial characterization results. For wastes originally characterized through
7 sampling and analysis, verification shall be achieved using the same sampling
8 and analysis methodologies used in the initial analysis. For wastes
9 characterized through AK, verification may be achieved through a review of
10 AK information and/or sampling and analysis;
- 11 • Re-characterize a hazardous, mixed low-level or mixed TRU waste managed
12 under this Permit whenever there is a change in waste-generating processes
13 that may affect the physical or chemical properties or listed status of the
14 waste; and
- 15 • Re-characterize a hazardous, mixed low-level or mixed TRU waste managed
16 under this Permit whenever the Permittees are notified by an off-site facility
17 that has received a hazardous waste from the Facility that the characterization
18 of the waste received at the off-site does not match a pre-approved waste
19 analysis certification or accompanying waste manifest or shipping paper. The
20 Permittees shall notify NMED in writing within 24 hours of their receipt of
21 such a discrepancy notice from a receiving facility.

22 Wastes listed at 40 CFR § 261.33 (i.e. discarded commercial chemical products, off-
23 specification species, container residues and spill residues thereof) and for which the
24 Permittees possess an MSDS or equivalent information from the manufacturer identifying
25 chemical content are exempt from the re-evaluation requirements of Permit Condition
26 .

27 The Permittees shall satisfy the waste characterization review requirements for mixed
28 TRU wastes destined for disposal at WIPP contained in this Permit and the most recent
29 version of the WIPP Hazardous Waste Facility Permit.

30 **II.A.6 Procedures to Ensure Compliance with RCRA Air Emission** 31 **Requirements**

32 The Permittees shall characterize hazardous wastes managed in containers to determine
33 the average volatile organic compound (VOC) concentration relative to 500 parts per
34 million by weight (ppmw) at the point of waste origination in compliance with 40 CFR
35 Part 264, Subpart CC. The Permittees shall determine the average VOC concentration
36 either by utilizing verifiable AK or by using the procedures specified in 40 CFR §
37 264.1083(a). The Permittees shall review and update this determination at least once
38 every 12 months following the date of the initial determination in compliance with 40
39 CFR § 264.1082(c)(1).

1 The Permittees are not required to determine the average VOC concentration from
2 hazardous waste containers if the Permittees control air pollution emissions from
3 containers in accordance with the container construction specifications and operation
4 requirements at 40 CFR § 264.1086(b).

5 The Permittees are not be required to determine the average VOC concentration of
6 containers of mixed wastes as exempted at 40 CFR § 264.1080(b)(6).

7 **II.A.7 Land Disposal Restriction Requirements**

8 **II.A.7.a Hazardous Waste Analysis**

9 The Permittees shall determine if a hazardous waste managed under this Permit must be
10 treated before it may be land disposed in accordance with 40 CFR §§ 268.40, 268.45, or
11 268.49. The Permittees shall make this determination by sampling and analyses of a
12 representative sample of the waste, AK, or a combination of the two methods.

13 When using laboratory analysis as part of a hazardous waste characterization, the
14 Permittees shall require the laboratory to report concentrations of all hazardous
15 constituents listed at 40 CFR § 268.48, *Table of Universal Treatment Standards*, that the
16 analytical test method used is capable of measuring. When performing or obtaining
17 laboratory analysis to demonstrate that a waste meets its applicable LDR treatment
18 standard concentrations specified in 40 CFR § 268.40, *Treatment Standards for*
19 *Hazardous Wastes*, in compliance with 40 CFR § 268.7(a) and (b), the Permittees shall
20 ensure that analytical method detection limits are not higher than the treatment standard.

21 The Permittees shall characterize treatment-derived wastes, including wastes that are de-
22 characterized and are no longer hazardous waste, to determine whether the waste meets
23 the applicable LDR treatment standards specified at 40 CFR §§ 268.40, 268.45, and
24 268.49, in compliance with 40 CFR § 268.7(b). The Permittees shall characterize
25 treatment-derived waste to determine the presence of any of the constituents of concern
26 for hazardous waste codes F001 through F005 and F039, in compliance with 40 CFR §
27 268.7(b)(3)(ii), and underlying hazardous constituents in characteristic wastes, as defined
28 at 40 CFR § 268.2, unless the waste will be treated and monitored for all constituents, in
29 compliance with 40 CFR § 268.7(b)(3)(ii).

30 **II.A.7.b Hazardous Waste Storage**

31 The Permittees shall ensure that each container or tank of hazardous waste, mixed low-
32 level or mixed TRU waste that is placed into storage at a Permitted Unit is clearly
33 marked to identify its contents and the date each period of accumulation began in
34 accordance with 40 CFR § 268.50(2)(i) and (2)(ii).

35 The Permittees may store hazardous wastes that are restricted from land disposal under
36 40 CFR Part 268, Subpart C for up to one year from the date that the wastes were first
37 placed into storage at the Facility, unless NMED demonstrates that such storage was not
38 solely for the purpose of accumulating such quantities of hazardous waste as are
39 necessary to facilitate proper recovery, treatment or disposal.

1 The Permittees shall not store such wastes beyond one year from the date that the wastes
2 were first placed into storage at the Facility unless the Permittees are able to demonstrate
3 to NMED that such storage was solely for the purpose of accumulating such quantities of
4 hazardous waste as are necessary to facilitate proper recovery, treatment or disposal.

5 **II.A.7.c Mixed Low Level Waste Storage**

6 The Permittees may store mixed low-level wastes that are restricted from land disposal
7 under 40 CFR Part 268, Subpart C for up to one year from the date that the wastes were
8 first placed into storage at the Facility, unless NMED demonstrates that such storage was
9 not solely for the purpose of accumulating such quantities of hazardous waste as are
10 necessary to facilitate proper recovery, treatment or disposal.

11 The Permittees shall not store such wastes beyond one year from the date that the wastes
12 were first placed into storage at the Facility unless the Permittees demonstrate to NMED
13 that the mixed low-level waste is included in the Site Treatment Plan (STP) under the
14 FFCO, which was issued by the NMED on October 4, 1995, and such storage is
15 otherwise in compliance with all requirements of the STP and FFCO. The STP, which
16 was written to address treatment capacities and technologies to treat all of the Permittees'
17 mixed wastes, is updated annually on or before March 31 pursuant to Section VII of the
18 FFCO.

19 **II.A.7.d Mixed TRU Waste Storage**

20 The Permittees may store mixed TRU wastes that are restricted from land disposal under
21 40 CFR Part 268, Subpart C for up to one year from the date that the wastes were first
22 placed into storage at the Facility, unless NMED demonstrates that such storage was not
23 solely for the purpose of accumulating such quantities of hazardous waste as are
24 necessary to facilitate proper recovery, treatment or disposal.

25 The Permittees shall not store such wastes beyond one year from the date that the wastes
26 were first placed into storage at the Facility unless the Permittees demonstrate to NMED
27 that the mixed TRU waste is included in the STP under the FFCO.

28 **II.A.7.e Prohibition on Dilution as a Substitute for Treatment**

29 The Permittees shall not dilute a waste that is restricted from land disposal, or the residue
30 from treatment of a restricted waste, as a substitute for treatment in compliance with 40
31 CFR § 268.3. Dilution to avoid an applicable treatment standard includes, but is not
32 limited to, the addition of solid waste to reduce a hazardous constituent's concentration or
33 ineffective treatment that does not destroy, remove, or permanently immobilize
34 hazardous constituents. The Permittees shall not aggregate a waste that is restricted from
35 land disposal with other waste streams or materials as a substitute for compliance with 40
36 CFR § 268.3. Aggregating or mixing wastes as part of a legitimate treatment process is
37 not considered impermissible dilution for purposes of this Permit.

1 **II.A.8 Waste Characterization Documentation Requirements**

2 The Permittees shall maintain the waste characterization information specified in Table
3 3.0, *Required Waste Characterization Information*, in the Facility Operating Record for
4 [REDACTED]. For records that contain waste characterization information but are required to
5 be archived elsewhere at the Facility, such as laboratory record books, the Permittees
6 shall assign a traceable identification number to this documentation to facilitate access to
7 this information by the Permittees and NMED for as long as required under [REDACTED].

8 The Permittees shall maintain waste characterization documentation for mixed TRU
9 wastes destined for disposal at WIPP in accordance with both this Permit and the most
10 recent version of the WIPP Hazardous Waste Facility Permit.

11 **II.B SECURITY**

12 The Permittees shall prevent the unknowing entry and minimize the possibility of
13 unauthorized entry of persons or livestock onto active portions of the Facility. The
14 Permittees shall comply with the security provisions and procedures specified in Permit
15 Conditions 2.7.1 and 2.7.2, and [REDACTED] in compliance with 40 CFR § 264.14.

16 **II.B.1 Surveillance and Means to Control Entry**

17 The Permittees shall employ one or more of the following means to comply with the
18 security requirements in 40 CFR § 264.14(a):

- 19
- 20 • A 24-hour surveillance system, which continuously monitors and controls
entry onto the active portion of the Facility and/or
 - 21 • An artificial or natural barrier (e.g. a fence in good repair or a fence combined
22 with a cliff), which completely surrounds the active portion of the Facility and
 - 23 • A means to control entry at all times, through gates or other entrances to the
24 active portions of the Facility (e.g. attendants, television monitors, locked
25 entrances and/or controlled roadway access).

26 The Permittees shall implement the specific means used for surveillance and to control
27 entry for each Permitted Unit as set forth in Attachment [REDACTED].

28 **II.B.2 Warning Signs**

29 The Permittees shall post warning signs in English and Spanish at all gates and perimeter
30 fences around Permitted Units at the Facility in sufficient numbers to be visible at all
31 angles of approach to the hazardous waste management unit and visible from a distance
32 of at least 25 feet. The Permittees shall include on the signs the following or equivalent
33 language:

34 **DANGER - UNAUTHORIZED PERSONNEL KEEP OUT** or **DANGER –**
35 **HAZARDOUS WASTE STORAGE AREA** and **EL PELIGRO – EL**
36 **PERSONAL NO AUTORIZADO NO ENTRAR** or **EL PELIGRO - EL**

1 **ALMACENAMIENTO DEL DESECHO or EL PELIGRO - EL AREA DE**
2 **LA ADMINISTRACIÓN PELIGROSO.**

3 The Permittees shall also post warning signs in Tewa along the common boundaries
4 between the Facility and the Pueblo of San Ildefonso (PO WHO GEH) and the Santa
5 Clara Pueblo (Kha-'Po) in sufficient numbers to be visible from all angles of approach to
6 Permitted Units and visible from a distance of at least 25 feet. The Permittees shall
7 include on these signs the following or equivalent language:

8 _____

9 **II.C GENERAL INSPECTION REQUIREMENTS**

10 The Permittees shall inspect Permitted Units for malfunctions or deterioration, operator
11 errors, or discharges during hazardous waste, mixed low-level waste and mixed TRU
12 waste management activities in time to correct them before they harm human health or
13 the environment. The Permittees shall implement the inspection program for the
14 Permitted Units at the Facility contained in compliance with Permit Condition 2.8, and
15 the inspection schedules and requirements in the Inspection Plan in Permit Attachment C
16 and 40 CFR §§ 264.15, 264.174, and 264.602.

17 **II.C.1 Inspection Schedule**

18 The Permittees shall inspect Permitted Units at the Facility, including any containers,
19 monitoring equipment, safety and emergency equipment, security devices, and operating
20 and structural equipment, at least once a week, in compliance with the inspection
21 schedules contained in the *Inspection Plan* in Permit Attachment C and 40 CFR §§
22 264.15(a) and (b), 264.174, and 264.602.

23 The Permittees may vary the frequency of the inspections in the *Inspection Plan* in
24 Permit Attachment C by item on the schedule, however, the Permittees shall base the
25 frequency upon the rate of deterioration of the equipment and the probability of an
26 environmental or human health incident if the deterioration, malfunction or operator error
27 goes undetected between inspections. The Permittees shall inspect areas subject to spills,
28 such as loading and unloading areas daily when in use in compliance with 40 CFR §
29 264.15(b)(4).

30 **II.C.2 Repair of Equipment and Structures**

31 The Permittees shall remedy any deterioration or malfunction of equipment or structures
32 discovered during an inspection on a timely and consistent basis, which ensures that the
33 problem does not lead to an environmental or human health hazard. The Permittees shall
34 immediately implement remedial action where a hazard is imminent or has already
35 occurred in compliance with 40 CFR §§ 264.15(c) and 264.171.

36 The Permittees shall ensure that preventative maintenance activities are performed on
37 timely and consistent basis and that detailed maintenance records are maintained in the

1 Facility Operating Records for a minimum of three years from the date the piece of
2 equipment is permanently taken out of service.

3 **II.C.3 Inspection Logs and Records**

4 The Permittees shall record the results of inspections in an inspection log in the
5 *Hazardous and Mixed Waste Facility Inspection Record Form* in the *Inspection Plan* in
6 Permit Attachment C, or equivalent form approved by the Secretary, for each inspection
7 conducted under Permit Condition 2.8. At a minimum, the Permittees shall record the
8 date and time of the inspection, the name and Z-number of the inspector, a notation of the
9 observations made, and the date and nature of any repairs or other remedial actions, in
10 compliance with 40 CFR § 264.15(d). The Permittees shall ensure that these records are
11 clearly legible, all handwritten information is in ink, and any errors are be crossed out
12 with one line and initialed and dated by the inspector making the correction.

13 The Permittees shall maintain inspection logs in the Facility Operating Record for at least
14 three years from the date of inspection, in compliance with Permit Condition 1.6 and 40
15 CFR § 264.15(d).

16 The Permittees shall record the results of preventative maintenance activities in a written
17 log. The Permittees shall maintain inspection logs in the Facility Operating Record for at
18 least three years from the date that the piece of equipment is permanently taken out of
19 service. The Permittees shall also maintain maintenance records on fire protection, testing
20 and maintenance equipment in accordance with National Fire Protection Association
21 (NFPA) standards.

22 **II.D PERSONNEL TRAINING**

23 The Permittees shall ensure that all Facility personnel who are involved in hazardous
24 waste management activities that are regulated under this Permit successfully complete a
25 training program, which complies with CFR § 264.16, within six months after their date
26 of employment or assignment to a Facility or a new Facility, whichever is later. The
27 Permittees shall ensure that personnel do not work in unsupervised positions until they
28 have completed the appropriate level of training. The Permittees shall follow the
29 personnel training program and procedures specified in the Personnel Training Plan in
30 Permit Attachment D.

31 **II.D.1 Content of Training Program**

32 The Permittees shall ensure that all components of the training program are directed by a
33 person trained in hazardous waste management procedures. The Permittees shall ensure
34 that this training program includes instruction, which teaches Facility personnel
35 hazardous waste management procedures, including *Contingency Plan* implementation,
36 that are relevant to their position descriptions. At a minimum, the Permittees shall ensure
37 that the training program has been designed to prepare Facility personnel to respond
38 effectively to emergencies by familiarizing them with emergency procedures, emergency
39 equipment, and emergency systems, including, where applicable:

- 1 • Procedures for using, inspecting, repairing and replacing facility emergency
- 2 and monitoring equipment;
- 3 • Key parameters for automatic waste feed cut-off systems;
- 4 • Communications or alarm systems;
- 5 • Response to fires and explosions;
- 6 • Response to groundwater contamination incidents; and
- 7 • Shutdown of operations.

8 *The Permittees shall ensure that Facility personnel who are involved in hazardous waste*
9 *management activities that are regulated under this Permit complete an annual review of*
10 *the initial training required in 40 CFR § 264.16(a).*

11 **II.D.2 Personnel Training Records**

12 The Permittees shall maintain and keep training documents and training records on
13 current personnel until the Facility closes. The Permittees shall keep training records on
14 former employees for at least three years from the date the employee last worked at the
15 Facility, in compliance with 40 CFR § 264.16(d) and (e).

16 The Permittees shall ensure that training records include the following documentation:

- 17 • The job title for each hazardous waste management position at the Facility
- 18 and the name and Z-number of each employee filling the position;
- 19 • A written job description for each hazardous waste management position. This
- 20 description must include the requisite skill, education or other qualifications
- 21 and duties of employees assigned to each position;
- 22 • A written description of the type and amount of both introductory and
- 23 continuing training that will be given to each person filling a hazardous waste
- 24 management position; and
- 25 • Records that document Facility personnel have received and completed the
- 26 training and/or job experience required under Permit Conditions __ through
- 27 __. The records must be searchable by employee name, employee Z-number,
- 28 or position description.

29 **II.E SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR** 30 **INCOMPATIBLE WASTE**

31 The Permittees shall manage ignitable, reactive and incompatible hazardous, mixed low-
32 level and TRU wastes in compliance with the requirements of 40 CFR § 264.17.

33 **II.E.1 Ignitability and Ignition Precautions**

34 The Permittees shall take precautions to prevent accidental ignition or reaction of
35 ignitable or reactive waste by following these requirements:

- 36 • Promptly follow up on project-specific fire protection program reviews related
- 37 to hazardous and mixed waste management at Permitted Units and verify that

- 1 proposed changes and modification have been implemented. The Permittees
2 shall document the results of these follow up activities in the Facility
3 Operating Record.
- 4 • Separate ignitable or reactive wastes and protect them from sources of ignition
5 or reaction such as open flames, smoking, cutting and welding, hot surfaces,
6 frictional heat, sparks (static, electrical or mechanical), spontaneous ignition
7 and radiant heat;
 - 8 • Maintain adequate clearance around fire hydrants that serve Permitted Units;
 - 9 • Perform an ongoing review of fire protection, inspection, testing and
10 maintenance to determine appropriate test criteria and preventative
11 maintenance activities;
 - 12 • Ensure that system engineers perform trending analysis consistent with NFPA
13 standards to anticipate impending failures of fire protection equipment or need
14 for equipment replacement or enhanced testing requirements;
 - 15 • Confine smoking and open flames to designated areas while ignitable or
16 reactive waste is being handled;
 - 17 • Post “No Smoking” and “No Fumar” in conspicuous locations wherever there
18 is a hazard form ignitable or reactive waste; and
 - 19 • Maintain fire detection and fire suppression systems that automatically begin
20 operation if there is a fire in a Permitted container storage unit and, in parallel,
21 summon the Los Alamos Fire Department in compliance with 40 CFR §
22 264.17(a) and (b). The Permittees shall ensure that each fire suppression
23 system is compatible with the hazardous, low-level mixed or mixed TRU
24 waste being managed in the Permitted Unit and that the Los Alamos Fire
25 Department personnel are familiar with any hazards related to the wastes
26 managed in the Permitted Unit.

27 **II.E.2 Reactivity Precautions**

28 The Permittees shall take precautions during the treatment or storage of ignitable or
29 reactive waste or mixing incompatible waste or incompatible wastes and other materials
30 to prevent reactions that:

- 31 • Generate extreme heat or pressure, fire or explosions or violent reactions;
- 32 • Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient
33 quantities to threaten human health or the environment;
- 34 • Produce uncontrolled flammable fumes or gases in sufficient quantities to
35 pose a risk of fire or explosions;
- 36 • Damage the structural integrity of the device or facility; and
- 37 • Threaten human health or the environment in any similar way.

38 **II.E.3 Documentation**

39 The Permittees shall document compliance with Permit Conditions ___ and ___ in the
40 Facility Operating Record. The Permittees may base this documentation on references to
41 published scientific or engineering literature, data from trial tests, waste analyses, or the

1 results of similar wastes by similar treatment processes and under similar operating
2 conditions.

3 **II.F WASTE MINIMIZATION PROGRAM**

4 The Permittees shall institute a waste minimization program to reduce the volume and
5 toxicity of hazardous wastes generated by the Facility's operation to the degree
6 determined by the Permittee to be economically practicable; and the proposed method of
7 treatment, storage, or disposal that is the practicable method currently available to the
8 Permittees which minimizes the present and future threat to human health and the
9 environment, in compliance with 40 CFR 264.73(b)(9).

10 The Permittees shall submit a copy of the annual certified statement regarding the waste
11 minimization program required at Permit Condition __ to the Secretary by December 1
12 for the previous year ending September 30 in compliance with 40 CFR 264.75(i).

13 **II.G LOCATION STANDARDS**

14 **II.G.1 Seismic Location Standards**

15 The Permittees are not required to comply with the seismic location standards in 40 CFR
16 § 264.18(a) because the hazardous waste management facility was in existence prior to
17 the effective date of this standard.

18 **II.G.2 Floodplain Standards**

19 This doesn't apply but there is a potential hazard from flooding from runoff of hillsides
20 de-forested by fire. Do we want to address this?

21 **II.H 2.7 PREPAREDNESS AND PREVENTION**

22 The Permittees shall maintain and operate the Facility in a manner that minimizes the
23 possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous
24 wastes or hazardous waste constituents to the air, soil or surface water that could threaten
25 human health or the environment.

26 **II.H.1 Required Equipment**

27 At a minimum, the Permittees shall maintain at the Facility the equipment listed in *Table*
28 *E-2 of the Contingency Plan*, in Permit Attachment E, in compliance with 40 CFR §
29 264.32.

30 **II.H.2 Testing and Maintenance of Equipment**

31 The Permittees shall test and maintain the equipment specified in Permit Condition
32 2.12.1, as necessary, to ensure its proper operation in time of emergency, in compliance
33 with 40 CFR § 264.33.

1 The Permittees shall ensure that there is adequate water storage capacity available to the
2 Facility to provide water for fire fighting purposes. The Permittees shall ensure that
3 hydrants and block and pressure-regulating valves are inspected in accordance with the
4 schedule in Attachment ____.

5 The Permittees shall ensure that adequate backup power supplies are available to operate
6 emergency response equipment (e.g. external and internal communication and alarm
7 equipment) in the event that the main power supply is disabled. The Permittees shall also
8 ensure that it is possible to get fuel to backup generators under adverse conditions.

9 The Permittees shall ensure that the external communication equipment is compatible
10 with the equipment used by the local authorities, emergency response organizations,
11 medical providers and contractors that are identified in Attachment ____.

12 The Permittees shall ensure that if testing identifies any communication equipment, alarm
13 system component or fire protection, spill control or decontamination equipment that is
14 not functioning properly it is promptly repaired. The Permittees shall immediately
15 provide substitute equipment or systems while the repairs are ongoing. The Permittees
16 shall ensure that Facility employees and contractors are notified of the presence of
17 substitute equipment and, if necessary, trained in its use. The Permittees shall ensure that
18 malfunctioning equipment is clearly marked as "Out of Use" and the location of the
19 substitute equipment is posted adjacent to the malfunctioning equipment.

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

21 The Permittees shall ensure that all personnel shall have immediate access to an internal
22 alarm or emergency communication device, either directly or through visual or voice
23 contact with another employee whenever hazardous, mixed low-level or mixed TRU
24 waste is being poured, mixed, spread or otherwise handled, in compliance with 40 CFR §
25 264.34(a). The Permittees shall ensure that the communications device is accessible
26 without personnel having to enter another building.

27 The Permittees shall ensure that any employee, when working alone without the
28 immediate presence of another employee, shall have immediate access to a device, such
29 as a hand-held two-way radio, cell phone or a telephone at the area of operations, capable
30 of summoning external emergency assistance. The Permittees shall ensure that the
31 communications device is accessible without the employee having to enter another
32 building.

33 **II.H.4 Required Aisle Space**

34 The Permittees shall maintain adequate aisle space at all times to allow the unobstructed
35 movement of personnel, fire protection equipment, spill control equipment, and
36 decontamination equipment to any area of Facility operation, in compliance with 40
37 CFR § 264.35, unless it can be demonstrated to the Secretary that aisle space is not
38 needed for any of these purposes.

1 **II.H.5 Arrangements with Local Authorities**

2 The Permittees shall attempt to make preparedness and prevention arrangements with
3 federal, state and local authorities, and tribal governments, in compliance with
4 *Arrangements with Local Authorities* in the *Contingency Plan* in Permit Attachment C
5 and 40 CFR § 264.37. These arrangements shall be in the form of a Memoranda of
6 Understanding (MOU), a Memoranda of Agreement (MOA), or a Mutual Aid Agreement
7 (MAA) between the Permittees and the off-site cooperating agencies and tribal
8 governments. The following arrangements and agreements shall be attempted:

- 9 • Arrangements to familiarize police, fire departments, and emergency response
10 teams with the layout of the facility and associated hazards, places where
11 Facility personnel are normally working, entrances to roads and roads within
12 the facility and possible evacuation routes;
- 13 • Agreements designating primary emergency authority to a specific police
14 and/or fire department when more than one police and/or fire department may
15 respond to an emergency;
- 16 • Agreements with any other organization that may provide support to the
17 primary emergency authority;
- 18 • Agreements with state and federal emergency response teams, ;
- 19 • Arrangements to familiarize adjacent tribal governments with the properties of
20 the hazardous, mixed low-level and mixed TRU wastes handled at the Facility
21 and the types of illnesses and injuries that could result from fires, explosions
22 or releases; and
- 23 • Arrangements to familiarize hospitals with the properties of the hazardous,
24 mixed low-level and mixed TRU wastes handled at the Facility and the types
25 of illnesses and injuries that could result from fires, explosions or releases.

26 The Permittees shall maintain copies and descriptions of the MOU's, MOA's, or MAA's
27 in the Facility Operating Record, in compliance with Permit Conditions 1.6 and 40 CFR §
28 264.37(b). These agreements must be renewed on an annual basis. The Permittees shall
29 also place copies of any contracts with emergency response contractors and emergency
30 suppliers related to preparedness and prevention and emergency response activities under
31 this Permit in the Facility Operating Record for ____.

32 If federal, state or local authorities refuse to enter into preparedness and prevention
33 agreements or the renewal of an agreement, the Permittees shall document the refusal in
34 the Facility Operating Record and notify the Secretary in writing of the refusal.

35 **II.I CONTINGENCY PLAN**

36 **II.I.1 Purpose and Implementation of Contingency Plan**

37 The Permittees shall immediately implement the *Contingency Plan* in Permit Appendix
38 __ whenever there is a fire, explosion, or any unplanned sudden or non-sudden release of
39 hazardous waste or hazardous constituents, which could threaten human health or the
40 environment, in compliance with 40 CFR § 264.51(b). The Permittees shall ensure that an

1 adequate number of trained emergency response personnel are available at all times,
2 including, but not limited to holidays, evenings and weekends.

3 **II.I.2 Content of the Contingency Plan**

4 The Permittees shall maintain the *Contingency Plan* in Permit Attachment to ensure
5 that it:

- 6 • Describes the actions that Facility personnel will take to comply with Permit
7 Conditions in response to fires, explosions, or any unplanned sudden or
8 non-sudden release of hazardous or mixed waste or hazardous waste
9 constituents to air, soil, surface or groundwater at the Facility;
- 10 • Describes all arrangements agreed upon by local police and fire departments;
11 hospitals; federal, state and local emergency response teams and tribal
12 governments to coordinate emergency services, as required in Permit
13 Condition ;
- 14 • Describes contracts with emergency response contractors and equipment
15 suppliers as required in Permit Condition ;
- 16 • Describes how this RCRA document is integrated into the emergency
17 response structure at LANL;
- 18 • Provides a list of names, addresses and phone numbers (office, home, cell and
19 pager, as applicable) of all persons qualified to act as an Emergency
20 Coordinator;
- 21 • Defines a procedure for its controlled distribution;
- 22 • Includes a list of all on-site emergency equipment related to Permitted Units.
23 In addition, the *Contingency Plan* shall provide a description of where this
24 equipment is located, a physical description of each item on the list, a brief
25 outline of its capabilities and TA-specific map illustrating equipment
26 locations;
- 27 • Includes a comprehensive evacuation plan for Facility personnel where there
28 is a possibility that evacuation may be necessary. The *Contingency Plan* shall
29 also include individual Building Emergency Plans (BEPs), or equivalents, for
30 Technical Areas with Permitted Units. The Permittees shall describe the
31 signal(s) to be used to begin evacuation and primary and alternate evacuation
32 routes;
- 33 • Includes procedures for sheltering-in-place as an alternative to evacuation;
- 34 • Includes procedures for responding to spills of hazardous and mixed wastes
35 and hazardous constituents;
- 36 • Includes procedures for responding to explosions and any resultant releases of
37 hazardous or mixed wastes or hazardous constituents;
- 38 • Includes procedures for responding to fires and any resultant releases of
39 hazardous or mixed wastes or hazardous constituents; and
- 40 • Includes procedures for responding to unplanned, non-sudden releases of
41 hazardous or mixed wastes or hazardous constituents.

1 **II.I.3 Distribution**

2 At a minimum, the Permittees shall maintain controlled copies of the *Contingency Plan*,
3 which include all revisions, in the Facility Operating Record and in the office(s) of the
4 Emergency Coordinator(s). The Permittees shall also maintain a copy of the applicable
5 BEPs at each Technical Area with Permitted Units.

6 The Permittees shall also submit a controlled copy of the *Contingency Plan* to the
7 Secretary, local police and fire departments, hospitals, contractors, tribal governments
8 and federal, state and local emergency response teams with which the Permittees have
9 MOU's, MOA's, MAA's or contracts required by Permit Condition 4.1.4 and 40 CFR §
10 264.53. The Permittees shall promptly submit all *Contingency Plan* amendments and
11 revisions to these same parties and maintain documentation of such distribution at the
12 Facility. The Permittees shall send all copies of the *Contingency Plan* and any
13 amendments and revisions that are distributed outside the Facility by certified mail with
14 return receipt or an equivalent method

15 **II.I.4 Amendments to Plan**

16 Pursuant to 40 CFR § 264.54 the Permittees shall review the *Contingency Plan* and
17 amend the Plan, if necessary, whenever:

- 18 • This Permit is revised;
- 19 • The LANL Emergency Management Plan is revised;
- 20 • The Los Alamos County Emergency Management Plan is revised;
- 21 • A BEP for a building which houses a Permitted Unit is changed;
- 22 • The *Contingency Plan* fails during a drill or an emergency;
- 23 • The Permittees modify the Facility, in either its design, construction,
24 operation, maintenance or other circumstances, in a manner that materially
25 increase the potential for fires, explosions, or releases of hazardous waste
26 constituents and/or design changes the response necessary in an emergency;
- 27 • The Permittees modify the list of emergency coordinators; and/or
- 28 • The Permittees modify the list of emergency response equipment.
- 29 • 2.8.5 Emergency Coordinator

30 The Permittees shall designate at least one employee as an Emergency Coordinator who
31 shall be responsible for coordinating all emergency response measures related to the
32 management of hazardous or mixed wastes. The Emergency Coordinator shall be either
33 on call at all times and, if away from the Facility, must be able to reach the Facility in a
34 short travel time. The Emergency Coordinator shall be thoroughly familiar with the
35 *Contingency Plan* and shall have the authority to promptly commit the personnel and
36 financial resources needed to implement the *Contingency Plan*, in compliance with 40
37 CFR § 264.55.

38 In the event of an imminent or actual emergency, the Emergency Coordinator shall
39 activate the internal emergency alarms, notify the appropriate federal, tribal, state and
40 local agencies with designated response roles, and implement the other requirements

1 specified in 40 CFR § 264.56 and the *Contingency Plan*. Where more than one person is
2 listed, one individual shall be named as the Primary Emergency Coordinator and the
3 others shall be listed in the order that they will assume responsibility as alternates.

4 **II.1.5 Required Emergency Procedures**

5 **II.1.5.a Immediate Actions**

6 The Permittees shall ensure that in the event of an imminent or actual emergency
7 situation the Emergency Coordinator, or designated alternate, shall immediately activate
8 the internal facility alarm or communication systems to notify all potentially affected
9 facility personnel and shall notify, if warranted, appropriate federal, tribal, state and local
10 agencies with designated emergency response roles.

11 **II.1.5.b Release, Fire or Explosions**

12 The Emergency Coordinator, or designated alternate, shall, in the event of a fire, release
13 or explosion:

- 14 • Immediately identify the character, exact source, amount, and areal extent of
15 any released materials. The Emergency Coordinator may do this by
16 observation, a review of facility records and/or by chemical analysis and
- 17 • Assess possible hazards to human health or the environment that may result
18 from the release, fire or explosion. This assessment shall consider both direct
19 and indirect effects of the release, fire or explosion.

20 **II.1.5.c Reporting Findings**

21 In the event that the Emergency Coordinator, or designated alternate, determines that
22 there has been a release, fire or explosion that may threaten the human health or the
23 environment outside the boundaries of the Facility he or she shall report the findings as
24 follows:

- 25 • If the Emergency Coordinator's, or designated alternate's, assessment
26 indicates that evacuation of local areas may be advisable, he or she shall
27 immediately notify the appropriate local and tribal authorities and shall be
28 available to assist appropriate officials decide whether local should be
29 evacuated and
- 30 • The Emergency Coordinator, or designated alternate, shall immediately notify
31 either the government official designated as the on-scene coordinator for that
32 geographical area, or the National Response Center (using the 24-hour, toll-
33 free number 800-424-8802). This report shall include:
 - 34 ○ The name and telephone number of the person reporting the incident;
 - 35 ○ The specific location at the Laboratory where the incident occurred;
 - 36 ○ The time and type of incident;
 - 37 ○ Name and quantities of materials involved, to the extent known;
 - 38 ○ The extent of any injuries, if any; and

- 1 ○ The possible hazards to human health and the environment outside the
2 Facility.

3 **II.I.5.d Mitigative Measures**

4 During an emergency, the Emergency Coordinator, or designated alternate, shall take all
5 reasonable measures necessary to ensure that fires, explosions, and releases do not occur,
6 recur or spread to other hazardous wastes at the Facility. These measures shall include,
7 where applicable, stopping processes and operations, collecting and containing released
8 waste and removing or isolating containers.

9 **II.I.5.e Monitoring**

10 In the event that the Facility stops operations in response to a fire, release or explosion,
11 the Emergency Coordinator, or designated alternate, shall monitor for leaks, pressure
12 buildup, gas generation, or ruptures in valves, pipes or other equipment, as appropriate.

13 **II.I.6 Post-Emergency Procedures**

14 Immediately after an emergency, the Emergency Coordinator, or designated alternate,
15 shall provide for treating, storing, or disposing of recovered waste, contaminated soil or
16 surface water, or any other material or contaminated environmental media that results
17 from the fire, explosion or release at the Facility.

18 The Emergency Coordinator, or designate alternate, shall also ensure that, in the affected
19 area(s) of the Facility:

- 20 • No waste that may be incompatible with the released material is treated,
21 stored or disposed of until cleanup procedures are completed and
22 • All emergency equipment listed in the *Contingency Plan* is cleaned and fit for
23 its intended use before operations are resumed.

24 **II.I.7 Need for Further Corrective Action**

25 If, after implementation of the *Contingency Plan* in response to a release of a hazardous
26 constituent, the Secretary determines that corrective action may be required to address the
27 release, the Secretary may require Permittees to conduct corrective action pursuant to the
28 Consent Order.

29 **II.I.8 Notification and Record Keeping**

30 The Emergency Coordinator, or designated alternate, shall notify the Secretary and
31 appropriate local and tribal authorities that the Facility is in compliance with Permit
32 Condition ___ before operations are resumed in the affected area(s) of the Facility.

33 The Emergency Coordinator, or designated alternate, shall note the time, date and details
34 of any incident that required the implementation of the *Contingency Plan* in the Facility
35 Operating Record. Within 15 days after the incident, the Emergency Coordinator, or

1 designated alternate, shall submit a written report on the incident to the Secretary. The
2 Emergency Coordinator, or designated alternate, shall include the following information
3 in this report:

- 4 • The name, address and telephone number of the owner/operator (Permittees);
- 5 • The name, address and telephone number of Facility;
- 6 • A description of the specific TA where the incident occurred;
- 7 • The name and quantity of the material(s) involved;
- 8 • The extent of injuries, if any;
- 9 • An assessment of actual or potential hazards to human health or the
10 environment, where applicable; and
- 11 • The estimated quantity and disposition of recovered material that resulted
12 from the incident.

13 **II.J RECORD KEEPING, REPORTING AND NOTIFICATION**

14 In addition to the record keeping and reporting requirements specified elsewhere in this
15 Permit and 40 CFR § 264.73(a), the Permittees shall comply with the following
16 conditions:

17 **II.J.1 Manifest Records**

18 The Permittees shall comply with the manifest requirements of 40 CFR §§ 264.71,
19 264.72, and 264.76 whenever a shipment of hazardous waste is initiated from the
20 Facility. The Permittees shall not accept any hazardous waste from an off-site source
21 without the accompanying manifest.

22 **II.J.2 Operating Record**

23 The Permittees shall maintain a written Operating Record at the Facility, in compliance
24 with 40 CFR § 264.73 and Permit Condition __, until post-closure activities have been
25 certified complete by the Secretary. The Permittees shall record the following
26 information as soon as it becomes available:

- 27 • A description of hazardous waste generated, the quantity generated and
28 methods and dates of storage and/or treatment at the Facility as required by
29 Appendix I of 40 CFR Part 264;
- 30 • The location of each type of hazardous waste within the facility and the
31 quantity at each location;
- 32 • Records and results of waste analyses and waste determinations that are
33 performed pursuant to Permit Conditions ____ and 40 CFR § 264.1083 and
34 268.7;
- 35 • Summary reports and details of all incidents that require the implementation
36 of the Contingency Plan as specified in Permit Condition ____;
- 37 • Records and results of inspections as required in Permit Condition _____. These
38 records and results shall be kept for a minimum of three years;

- 1 • Monitoring, testing, or analytical data and corrective action when required by
- 2 Permit Module __ and 40 CFR § 264.1088 through 1090;
- 3 • All closure cost estimates as required in Permit Condition __; and
- 4 • Certification, at least annually, that there is a Facility program in place to
- 5 reduce the volume and toxicity of hazardous waste that is generated to the
- 6 degree that it is economically practicable.

7 **II.J.3 Availability of Operating Record**

8 The Permittees shall furnish and make available for inspection by NMED, upon request
9 by NMED, the operating record and all other records required under 40 CFR Part 264, in
10 compliance with 40 CFR § 264.74(a). Information and records requested by NMED
11 pursuant to this condition shall be made available for inspection in paper form or in an
12 electronic format or both as NMED may specify.

13 **II.J.4 Biennial Report**

14 The Permittees shall comply with the biennial reporting requirements of Permit
15 Condition 1.5.10.g and 40 CFR § 264.75.

16 **II.J.5 Waste Minimization Program**

17 The Permittees shall annually, by December 1 for the previous year ending September
18 30, enter into the Operating Record a certified statement specifying that the Permittee has
19 a waste minimization program in place, in accordance with Permit Condition _____. A
20 current description of the waste minimization program shall also be maintained in the
21 Operating Record.

22 **II.J.6 Personnel and Telephone Number Changes**

23 The Permittees shall inform the Secretary in writing of changes in their management
24 personnel and telephone numbers within 15 days of the change.

25 **II.K GENERAL CLOSURE REQUIREMENTS**

26 **II.K.1 Closure Performance Standard**

27 Once the Permittees have stopped operation of a Permitted Unit, the Permittees shall
28 close the unit in a manner that satisfies the closure performance standard in 40 CFR §
29 264.111 by:

- 30 • Minimizing the need for further maintenance;
- 31 • Controlling, minimizing, or eliminating, to the extent necessary to protect
- 32 human health and the environment, the post-closure escape of hazardous
- 33 waste, hazardous constituents, leachate, contaminated runoff, or hazardous
- 34 waste decomposition products to the ground or surface waters or atmosphere;
- 35 • Meeting the applicable closure requirements of 40 CFR §§ 264.111 and
- 36 264.178;

- 1 • Ensuring that all hazardous waste and hazardous waste residues are removed
2 from the containment systems; and
3 • Removing or decontaminating all remaining containers, liners, bases, and soil
4 containing or contaminated with hazardous or mixed waste or hazardous
5 waste residues to cleanup levels specified in _____.

6 **II.K.2 Content of Plan**

7 The detailed closure plans for each Permitted Unit at the Facility and the Facility as a
8 whole, which were submitted by the Permittees with the Permit application and approved
9 by the Secretary, are an enforceable condition of this Permit. The closure plans for the
10 various Permitted Units at the Facility and for final closure at the Facility identify the
11 steps that are necessary to perform partial and/or final closure of each Permitted Unit at
12 any point during its active life. These closure plans shall include, at a minimum:

- 13 • A description of how each unit will be closed in accordance with the closure
14 performance standard in 40 CFR § 264.11;
15 • A description of how final closure of the Facility will be conducted in
16 accordance with the closure performance standard in 40 CFR § 264.11. This
17 description shall identify the maximum extent of the operations that will be
18 unclosed during the active life of the Facility;
19 • An estimate of the maximum inventory of hazardous wastes ever onsite
20 during the active life of the Facility (by unit, TA and for the entire Facility)
21 and a detailed description of the methods to be used during partial and/or final
22 closure, such as methods for removing, transporting, treating, storing or
23 disposing of all hazardous wastes, and identification of the type(s) of the off-
24 site hazardous waste management units to be used, if applicable;
25 • A detailed description of the steps needed to clean, remove, decontaminate or
26 dispose all hazardous waste residues and contaminated containment system
27 components, equipment, structures, and soils during partial or final closure,
28 including but not limited to, procedures for cleaning equipment and removing
29 contaminated soils, methods for sampling and testing surrounding soils and
30 criteria for determining the extent of decontamination required to satisfy the
31 closure performance standard;
32 • A detailed description of any necessary closure verification activities;
33 • A detailed description of other activities necessary during the closure period
34 to ensure that all partial closures and final closure satisfy the closure
35 performance standards; and
36 • A schedule for closure of each Permitted Unit and for final closure of the
37 Facility. The schedule must include, at a minimum, the total time required to
38 close each Permitted Unit and the time required for intervening closure
39 activities, which will allow tracking of partial and final closure activities.

40 **II.K.3 Amendment of Closure Plan**

41 The Permittees may submit a written request to the Secretary for a permit modification to
42 amend any closure plan included in this Permit before the notification of final closure of

1 the Facility. The Permittees shall submit a written request to the Secretary for a permit
2 modification to amend any closure plan included in this Permit whenever:

- 3 • Changes in operating plans or Facility design affect the closure plan;
- 4 • There is a change in the expected year of closure;
- 5 • Unexpected events encountered during partial or final closure activities
6 require a modification of the approved closure plan; or
- 7 • The Permittees request the Secretary to apply alternative requirements under
8 40 CFR § 264.110(c).

9 The Permittees shall submit a written request for a permit modification, including a copy
10 of the amended closure plan, to the Secretary for approval at least 60 days prior to the
11 proposed change in Facility design or operation or no later than 60 days after an
12 unexpected event has occurred that has affected the closure plan. If an unexpected event
13 occurs during the partial or final closure period, the Permittees shall request a permit
14 modification request no later than 30 days after the unexpected event.

15 The Secretary may request modifications to any closure plan included under this Permit
16 under the conditions described in 40 CFR § 264.112(c)(2). The Permittees shall submit
17 the modified plan within 60 days of the Secretary's request or within 30 days if the
18 change in Facility conditions occurs during partial or final closure.

19 **II.K.4 Notification of Closure**

20 The Permittees shall notify the Secretary in writing at least 45 days prior to the date on
21 which they expect to begin closure of a Permitted Units in compliance with 40 CFR §
22 264.112(d). This date must be:

- 23 • No later than 30 days after the date on which any Permitted Unit receives the
24 known final volume of hazardous waste or
- 25 • If there is a reasonable possibility the Permitted Unit will receive additional
26 hazardous wastes, no later than one year after the date on which the unit
27 received the most recent volume of hazardous waste. The Secretary may
28 approve an extension to this one year limit if the Permittees demonstrate to the
29 Secretary that the Permitted Unit or Facility has the capacity to receive
30 additional hazardous or mixed wastes and that they have taken all necessary
31 steps to prevent threats to human health and the environment, including all
32 applicable Permit requirements.

33 Nothing in this Permit Condition shall preclude the Permittees from removing hazardous
34 or mixed wastes and decontaminating or dismantling equipment in accordance with the
35 approved partial or final closure plan at any time prior to partial or final closure.

36 **II.K.5 Time Allowed For Closure**

37 Within 90 days after receiving the final volume of hazardous or mixed waste at a
38 Permitted Unit, the Permittees shall treat or remove from the unit all hazardous or mixed

1 waste, in compliance with the General Closure Plan, the applicable TA-Specific Closure
2 Plan, and 40 CFR §§ 264.111 through 116, unless an extension is approved by the
3 Secretary in compliance with 40 CFR § 264.113(a).

4 The Permittees shall complete all partial or final closure activities in compliance with the
5 General Closure Plan, the applicable TA-Specific Closure Plan, and 40 CFR §§ 264.111
6 through 264.116 within 180 days after receiving the final volume of hazardous or mixed
7 waste at a Permitted Unit, unless an extension is approved by the Secretary in compliance
8 with all requirements of 40 CFR § 264.113(b).

9 **II.K.6 Disposal or Decontamination of Equipment, Structures, and Soil**

10 The Permittees shall decontaminate or dispose of all hazardous and mixed wastes and
11 hazardous constituents and all contaminated equipment, structures and environmental
12 media associated with the Permitted Unit being closed, as required by the General
13 Closure Plan, the applicable TA-Specific Closure Plan, and 40 CFR § 264.114.

14 **II.K.7 Certification of Closure**

15 Within 60 days after the date of completion of closure, the Permittees shall provide to the
16 Secretary by registered mail or an equivalent method a final closure report and written
17 closure certification, signed by an independent professional engineer registered in New
18 Mexico, that the Facility was closed in compliance with the General Closure Plan, the
19 applicable TA-Specific Closure Plan, and 40 CFR §§ 264.111 through 264.116.

20 **II.K.8 Verification of Closure**

21 The NMED will verify closure certifications by reviewing the information submitted by
22 the Permittees in support of the certification, the closure plan for the Permitted Unit, any
23 documentation or information generated by the NMED during oversight of closure
24 activities and any other pertinent information and documentation. NMED may visit the
25 site as part of closure verification. If the NMED determines that the closure of the
26 Permitted Unit has satisfied the closure performance standard, was performed in
27 accordance with the approved closure plan and accepts the closure certification, NMED
28 will inform the Permittees of the acceptance in writing.

29 If the NMED is unable to verify the certification of closure and, therefore, unable to
30 accept the closure certification, NMED may require additional sampling of
31 environmental media, structures or equipment or monitoring of groundwater to verify the
32 closure certification or may require the Permittees to submit an application for a post-
33 closure permit. If sampling or monitoring is required, NMED will extend the closure
34 period to cover the time period for the required sampling or monitoring.

35 **II.L ALTERNATIVE CLOSURE REQUIREMENTS**

36 NMED may replace all or part of the closure requirements in 40 CFR Part 264, Subpart G
37 with alternative requirements set out in a permit or in an enforceable document as defined
38 in 40 CFR § 270.1(c)(7), where the Secretary determines that:

- 1 • The Permitted Unit is located among solid waste management units or areas of
2 concern, a release has occurred, and both the Permitted Unit and one or more
3 solid waste management units or areas of concern are likely to have
4 contributed to the release; and
5 • It is not necessary to apply the closure requirements of 40 CFR Part 264,
6 Subpart G because the alternative requirements will protect human health and
7 the environment and will satisfy the closure performance standard of 40 CFR
8 §§ 264.111 (a) and (b).

9 Factors NMED may choose to consider include, but are not limited to, site conditions,
10 availability of resources, the owner/operators' preference, the public's preference and the
11 compliance status of the owner/operator.

12 The preamble stresses the importance of public participation particularly early in the
13 process *prior* to remedy selection. The EPA stated that in situations where the
14 owner/operator implements an action that could be considered a remedy prior to agency
15 involvement or oversight the owner/operator should provide notice and opportunity to
16 comment on the prospective remedy and its underlying assumptions, otherwise any
17 enforceable document developed later may not be eligible to substitute for a post-closure
18 permit. EPA also stresses that all public involvement must be meaningful (more than
19 notice and comment) and incorporate the EPA's model environmental justice public
20 participation plan. How do we want to address this?

1

PART III: CONTAINERS

2

III.A GENERAL DESCRIPTION

3

The Permittees shall manage containers of hazardous, mixed low-level and mixed TRU wastes in the Permitted container storage units specified in Table 3.1. The Permittees shall not manage containers of hazardous, mixed low-level and mixed TRU wastes in excess of the maximum capacities for each Permitted container storage unit identified in Table 3.1.

7

Table 3.1 Container Storage Areas, Waste Types and Design Capacities

Location	Type of Storage	EPA HW #	Dimensions	Maximum Volume

8

9

Insert brief description of each area with reference to TA-specific attachment

10

III.B CONDITION OF CONTAINERS

11

The Permittees shall ensure that all containers used to store hazardous, mixed low-level or mixed TRU wastes subject to this Permit are in good condition (e.g., no severe rusting or apparent structural defects). If a container is not in good condition or begins to leak, the Permittees shall:

14

- Transfer the waste from such a container into a container that is in good condition or
- Manage the waste in some other way that complies with this Permit and the requirements of 40 CFR § 264.171

15

16

17

The Permittees shall only store hazardous waste in those container types identified in Table 3.2.

18

Table 3.2 Acceptable Storage Containers

Technical Area	Location	Acceptable Containers by Type

19

1 **III.C COMPATIBILITY OF WASTE WITH CONTAINERS**

2 The Permittees shall use containers made of or lined with materials that are compatible with and
3 will not react with the hazardous, mixed low-level or mixed TRU waste to be stored in the
4 containers.

5 For all containers within a single secondary containment system, the Permittees shall ensure that
6 all containers are compatible with all hazardous, mixed low-level and mixed TRU wastes within
7 that containment system. The Permittees shall ensure compliance with this requirement by
8 conducting pre-acceptance screening before the hazardous, mixed low-level or mixed waste is
9 accepted for storage, considering the precautions related to prevention of accidental ignition or
10 reaction of ignitable, reactive or incompatible wastes.

11 **III.D MANAGEMENT OF CONTAINERS**

12 The Permittees shall always keep containers holding hazardous, mixed low-level or mixed TRU
13 wastes closed during storage, except when necessary to add, remove or sample waste from the
14 container. Examples of "closed containers" include, but are not limited to, the following:

- 15 • If the waste is solid: The cover of the container must be in good condition and placed
16 squarely on the container so there are no apparent cracks or gaps between the lid and
17 the container, but it need not be secured. For example a lid may have a swinging door
18 opened by a foot pedal.
- 19 • If the waste is a liquid: All openings of the container must be covered with the cover
20 securely affixed to the container. As an alternative, a cover must be squarely placed
21 on a container that is otherwise protected from spilling and other hazards sought to be
22 prevented by this rule. Containers for waste volatile liquids located in secondary
23 containment and satellite containers placed or otherwise managed in areas protected
24 from vehicles and material handling devices, or otherwise managed to prevent tipping
25 or spilling, will be considered closed when bungs and rings are in place. Such
26 containers may also be considered closed when equipped with funnels and funnel
27 stem valves or gasketed funnels lids in good condition. Similarly, containers in secure
28 locations may be determined to be closed if merely equipped with weighted and
29 gasketed lids, bung stoppers, snap ring lids, overlapping covers, or other impermeable
30 devices compatible with the waste, provided it fits without gaps or holes, minimizes
31 emissions and protects wastes from ignition sources.
- 32 • If the waste is mixed (a combination of hazardous and radioactive wastes): The
33 Safety Analysis Report (DOE 1997b) for packaging requires the lids of mixed TRU
34 wastes containers to be vented through high efficiency particulate air (HEPA)-grade
35 filters to preclude container pressurization caused by gas generation and to prevent
36 particulate material from escaping. Containers of mixed low-level and mixed TRU
37 wastes with these filters meet the closed container requirement.

38 The Permittees shall never open, handle or store a container holding hazardous, mixed low-level
39 or mixed TRU waste in a manner that may rupture the container or cause the container to leak.
40 When waste containers are opened for waste addition, volume reduction, and/or repackaging, the

1 containers shall be opened within a work enclosure that provides for confinement of the waste
2 and prevents the release of waste or waste constituents.

3 Damaged containers shall be repaired or overpacked or the contents of the container repackaged
4 in a new container prior to placement in a Permitted container storage unit.

5 The Permittees shall design, construct, maintain and operate the Permitted container storage units
6 to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release
7 of hazardous, mixed low-level or mixed TRU wastes or hazardous waste constituents to the air,
8 soil or surface water, which could threaten human health or the environment.

9 **III.D.1 Storage Configuration**

10 The Permittees shall maintain adequate aisle space at all times to allow the *unobstructed*
11 movement of personnel, fire protection equipment, spill control equipment, and decontamination
12 equipment to any area of Facility operation, as specified in the applicable TA-specific permit
13 chapter, Attachment A (*Facility Description*) and in compliance with 40 CFR § 264.35, unless it
14 can be demonstrated to the Secretary that aisle space is not needed for any of these purposes.

15 The Permittees shall not exceed a reasonable and safe stack height for containers. Fifty-five
16 gallon drums or similar containers shall be stored in rows that are no more than two drums high
17 and two drums wide unless it can be demonstrated to the Secretary that a different configuration
18 will not compromise the structural integrity of the containers and that the height will not cause
19 undue safety hazards.

20 The Permittees shall store containers in a manner that allows the containers to be inspected for
21 leaks and for corrosion and deterioration and for container labels to be read without moving
22 them.

23 **III.D.2 Storage Container Emission Controls**

24 The Permittees shall control air pollutant emissions from each container of hazardous waste in
25 compliance with 40 CFR Part 264, Subpart CC. The Permittees shall ensure that all hazardous
26 waste containers meet the appropriate container control based upon capacity in compliance with
27 40 CFR § 264.1086.

28 The Permittees shall ensure that all containers holding mixed low-level and TRU wastes are
29 vented with HEPA filters, which allow venting of gases but prohibit the release of airborne
30 particles.

31 **III.E CONTAINMENT SYSTEMS**

32 **III.E.1 Containers with Free Liquids**

33 The Permittees shall maintain secondary containment systems in all Permitted container storage
34 units used to manage wastes which contain free or residual liquids in compliance with 40 CFR §
35 264.175. The Permittees shall store containers of hazardous, mixed low-level and mixed TRU
36 wastes in a manner that prevents contact with any liquids that may be present within the

1 secondary containment. The Permittees shall not store containers of hazardous, mixed low-level
2 and mixed TRU wastes directly on a ground surface or other surface without an impervious base
3 that is free of cracks or gaps and secondary containment.

4 The Permittees shall comply with the secondary containment requirements for wastes with free
5 liquids for hazardous or mixed wastes with the following listings: F020, F021, F022, F023, FO26
6 and F027.

7 The Permittees shall maintain the bases secondary containment systems base to ensure that they
8 are sufficiently impervious to contain leaks, spills, and/or accumulated precipitation until the
9 collected liquids are detected and removed. The Permittees shall also ensure that the containment
10 system have adequate structural strength to withstand the stresses of daily operations.

11 The Permittees shall remove spilled or leaked waste and accumulated precipitation from any
12 sumps or other collection areas within 24-hours of detection. If the Permittees can demonstrate to
13 the Secretary that the accumulated liquids cannot be removed within 24-hours, additional time
14 may be allowed a case-by-case basis. If the collected liquid is a hazardous waste, the Permittees
15 shall manage it as such in accordance with all applicable regulatory requirements. If the
16 Permittees discharge collected liquid through a point source to the waters of the United States, it
17 is subject to the requirements of Section 402 of the Clean Water Act.

18 The Permittees shall seal or coat concrete or asphalt secondary containment structures with a
19 material that is compatible with and impervious to the wastes stored in the container storage area
20 unless the Permittees can demonstrate to the Secretary that the concrete is impervious to the
21 wastes stored and has the necessary integrity to resist cracking or other failure during the life of
22 the unit. If a coating or sealant is used the Permittees shall maintain documentation in the
23 Facility Operating Record that includes, but is not limited to, the manufacturer's specifications,
24 that the coating or sealant was applied in accordance with the manufacturer's specifications and
25 that the coating or sealant is re-applied in accordance with the manufacturer's specifications. If a
26 flexible liner is used the Permittees shall maintain documentation in the Facility Operating
27 Record that includes, but is not limited to, the manufacturer's specifications, that the flexible
28 liner was applied in accordance with the manufacturer's specifications and that the flexible liner
29 is maintained in accordance with the manufacturer's specifications.

30 If the base of the containment unit has expansion or construction joints, the Permittees shall
31 install and maintain chemically resistant water stops, which are embedded in the concrete, or
32 equivalent external systems (e.g. sealant systems).

33 The Permittees shall inspect the Permitted container storage units at least weekly for evidence of
34 leaks or deterioration of the containment system by corrosion, cracking, differential settlement or
35 other factors. If the base, concrete, liner or coating is cracked or otherwise damaged, the
36 Permittees shall repair the damage promptly and properly, within 15 calendar days of detecting
37 the problem. The Permittees shall perform any concrete repair using an appropriate repair
38 method (e.g. ACI standards or manufacturer's recommendations), which will prevent future
39 damage at the same location. The Permittees shall apply coatings or sealants, if applicable, to the
40 repaired area before waste storage activities resume.

1 **III.E.2 Container Storage Areas that Store Containers without Free Liquids**

2 For container storage areas that will only store wastes without free liquids, the Permittees shall
3 ensure that the storage areas are sloped or otherwise designed and operated to drain and remove
4 liquid resulting from precipitation or other liquids. The Permittees shall ensure that all containers
5 are elevated or otherwise protected from contact with any accumulated liquid. The Permittees
6 shall ensure that any containers that are not self-elevated by design are elevated (e.g. on pallets),
7 not placed directly on the storage area surface, to prevent any contact with accumulated
8 precipitation or other liquids.

9 **III.F INSPECTIONS**

10 The Permittees shall, at a minimum, conduct weekly inspections of all Permitted container
11 storage units. The Permittees shall visual examine containers and secondary containment systems
12 for leaks and possible deterioration. The Permittees shall also conduct an inspection on days of
13 active waste handling at any permitted container storage units for the following items:

- 14 • Secondary containment systems;
- 15 • Run-on controls;
- 16 • Covers and lids of containers;
- 17 • Labels;
- 18 • Accumulation start dates;
- 19 • Waste compatibility;
- 20 • Structural integrity of containers; and
- 21 • Loading and unloading areas.

22 The Permittees record the results of inspections in an inspection log in compliance with Permit
23 Condition ___ and _____. The Permittees shall maintain inspection logs in the Facility
24 Operating Record for at least three years from the date of inspection, in compliance with Permit
25 Condition ___ and 40 CFR § 264.15(d).

26 **III.G SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE**
27 **WASTES**

28 The Permittees shall not locate containers holding ignitable or reactive wastes within 50 feet
29 from any Facility boundary line. The Permittees shall take all appropriate precautions to prevent
30 accidental ignition or reaction of ignitable or reactive waste and shall follow procedures
31 specified in the Waste Analysis Plan in Permit Attachment ___. The Permittees shall not stack
32 containers of ignitable or reactive wastes more than two high, in compliance with the National
33 Fire Protection Association's *Flammable and Combustible Liquids Code*.

34 **III.H SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTES**

35 The Permittees shall not place incompatible wastes or incompatible wastes and materials in the
36 same container unless the requirements in Permit Condition 2. ___ are met. The Permittees shall
37 not place hazardous, mixed low-level or mixed TRU wastes in an un-decontaminated container
38 that previously held an incompatible waste or material.

1 The Permittees shall separate containers of incompatible wastes as specified in the Waste
2 Analysis Plan in Permit Attachment _____. The Permittees shall separate containers with
3 incompatible wastes from other materials by means of a berm, dike, wall or other device. The
4 Permittees shall ensure that incompatible wastes will not cause a secondary containment
5 structure to leak, corrode or fail.

6 **III.I CLOSURE**

7 **III.I.1 Closure Performance Standard**

8 Once the Permittees have stopped operation of a Permitted container storage unit, the Permittees
9 shall close the unit in a manner that satisfies the closure performance standard in 40 CFR §
10 264.111 by:

- 11 • Minimizing the need for further maintenance;
- 12 • Controlling, minimizing, or eliminating, to the extent necessary to protect human
13 health and the environment, the post-closure escape of hazardous waste, hazardous
14 constituents, leachate, contaminated runoff, or hazardous waste decomposition
15 products to the ground or surface waters or atmosphere;
- 16 • Meeting the applicable closure requirements of 40 CFR §§ 264.111 and 264.178;
- 17 • Ensuring that all hazardous waste and hazardous waste residues are removed from the
18 containment systems; and
- 19 • Removing or decontaminating all remaining containers, liners, bases, and soil
20 containing or contaminated with hazardous or mixed waste or hazardous waste
21 residues to cleanup levels specified in _____.

22 **III.I.1.a Clean Closure Levels**

23 **III.I.1.b Selection of Constituents to be Analyzed**

24 The Permittees shall identify all hazardous, mixed low-level and mixed TRU wastes; hazardous
25 constituents and residues managed within the Permitted container storage unit. The Permittees
26 shall base their selection of analytical constituents on current and historical operations at the
27 Permitted container storage unit. The Permittees shall propose a list of analytical constituents and
28 laboratory methods in the closure plan and provide detailed rationale for the chosen constituents.

29 **III.I.1.c Indicator Constituents**

30 The Permittees may propose to use indicator constituents that are representative of the wastes
31 managed at the unit to demonstrate clean closure. The Permittees shall propose the use of
32 indicator constituents in the closure plan and provide detailed rationale for the chosen
33 constituents. The use of indicator constituents is subject to the approval of NMED. The NMED
34 may require initial broad-based sampling prior to approving the use of indicator constituents.

35 **III.I.1.d Pre-Existing Contamination**

36 If the Permittees propose a unit-specific closure plan that documents the presence of pre-existing
37 contamination, they may still achieve clean closure provided:

- 1 • The Permittees document to the NMED's satisfaction that the contamination was not
2 caused in any way from hazardous, mixed low-level or mixed TRU waste
3 management activities at the Permitted container storage unit. The Permittees shall
4 provide analytical data, reports, historical records and other sources of documentation
5 that demonstrate that the hazardous constituents were present at the location of the
6 Permitted container storage unit before the unit was constructed or before hazardous,
7 mixed low-level or mixed TRU wastes were managed in the unit or hazardous
8 constituents migrated to the Permitted container storage unit from another, unrelated
9 source and
- 10 • The Permittees remove all hazardous, mixed low-level and mixed TRU wastes,
11 hazardous constituents and waste residues that originated from the Permitted
12 container storage unit or waste management activities to appropriate clean closure
13 levels.

14 If pre-existing contamination remains at a clean closed unit at concentrations above _____
15 cleanup criteria, the area will be subject to additional corrective action requirements under the
16 Consent Order.

17 **III.I.2 Removal of Wastes and Waste Residues**

18 The Permittees shall use all practical and appropriate methods to remove all hazardous, mixed
19 low-level and mixed TRU wastes and waste residues from the closing Permitted container
20 storage unit. The Permittees shall manage all wastes and waste residues from closing Permitted
21 container storage units in accordance with all applicable regulations.

22 The Permittees shall provide an estimate in the closure plan of the volumes and types of
23 hazardous, mixed low-level and mixed TRU wastes and waste residues that will be removed
24 during closure. The Permittees shall fully describe, in the closure plan, every activity that will be
25 needed to remove wastes and waste residues including, but not limited to, staging and
26 containerization of wastes and reagents, equipment that will be used, and the management of
27 staging, accumulation and loading areas. The Permittees shall also describe the procedures that
28 will be used to minimize or prevent the emission of hazardous, mixed low-level and mixed TRU
29 wastes and hazardous constituents.

30 The Permittees shall visually inspect closing Permitted container storage units after all
31 hazardous, mixed low-level and mixed TRU wastes and waste residues have been removed to
32 determine if release at or from the closing unit may have occurred or may occur during
33 decontamination. The Permittees shall notify the NMED _____ prior to the date of the inspection
34 to provide the Department the opportunity to participate. The Permittees shall identify all cracks
35 and other openings in the unit and unit containment structure through which waste, debris or
36 decontamination media (e.g. wash water) could be released to the environment and maintain
37 records of the locations and dimensions of all these cracks and other openings for inclusion in the
38 closure certification report.

39 If the inspection reveals any cracks or other openings that may release contamination to
40 underlying soil or other environmental media, the Permittees shall seal or otherwise repair the
41 cracks or other openings to prevent releases during high-pressure steam or water washing. The

1 Permittees shall document the materials and techniques used for the repairs in the closure
2 certification report.

3 **III.I.3 Decontaminating Equipment, Structures and Debris**

4 The Permittees shall fully describe all activities related to removing and decontaminating
5 equipment, structures and any resulting debris. In determining what decontamination methods
6 and evaluation criteria would be most appropriate, the Permittees shall consider site-specific
7 conditions including, but not limited to, the potential for cross-media contamination and the need
8 to manage decontamination residuals.

9 The Permittees shall use of the following three options for decontaminating equipment,
10 structures and any resulting debris:

- 11 • Use the debris-specific, technology-based Alternative Treatment Standards for
12 Hazardous Debris specified in 40 CFR § 268.45, Table 1;
- 13 • Propose a site-specific decontamination method and a way to evaluate whether or not
14 the decontamination was successful; or
- 15 • Meet NMED numeric unrestricted site use cleanup levels in _____.

16 The Permittees shall describe the procedure for making a contained-in determination for any
17 equipment, structures or debris that will be disposed of as a result of closure activities. At a
18 minimum the Permittees shall include an evaluation of the following factors in this procedure:

- 19 • The history of the unit undergoing closure;
- 20 • The concentrations of hazardous constituents present; and
- 21 • Potential routes of exposure to such hazardous constituents.

22 The Permittees shall include a decontamination confirmation sampling plan to demonstrate that
23 either:

- 24 • Contaminated equipment, structures and/or buildings have been properly
25 decontaminated; that is, the closure performance standard has been met or
- 26 • Certain equipment, structures or debris are not contaminated; therefore
27 decontamination is not necessary.

28 The Permittees' decontamination confirmation sampling plan shall contain the following elements:

- 29 • *Sampling objectives/purpose.* The specific objectives for sampling must describe the
30 intended uses of the data;
- 31 • *Number and locations of the samples to be taken.* The Permittees shall provide the
32 rationale for the number and locations of the samples proposed in the closure plan. A
33 site plan showing the boundaries of the regulated unit and the sampling locations
34 shall be included;
- 35 • *Type of samples.* The Permittees shall provide, for each Permitted container storage
36 unit, a table listing the unit, the type of sample(s) and a summary of the rationale for
37 choosing that type of sample. For example, surface sampling may be appropriate for

1 surfaces contaminated with non-volatile analytes (e.g. wipe sampling for smooth and
2 impervious solid surfaces such as metal tanks and epoxy coated concrete and vinyl
3 liners and core or chip sampling for porous surfaces such as uncoated concrete,
4 asphalt, wood and concrete) while a rinse water sample may be appropriate for
5 pumps, piping and small equipment where potentially contaminated surfaces are
6 inaccessible.

- 7 • *Field sampling methods.* The Permittees shall describe the procedures and equipment
8 that will be used for each type of sample collected. The procedures must include the
9 following information, where applicable:

- 10 ○ Design and construction of the sampling equipment;
11 ○ Step-by-step instructions for taking the sample; and
12 ○ The type of sample containers.

- 13
14 • *Quality control samples.* The Permittees shall describe the quality control measures
15 for each sample and each sample set, such as field replicates, travel blanks and
16 equipment blanks.

- 17 • *Decontamination of sampling equipment.* The Permittees shall describe how sampling
18 equipment will be cleaned prior to its first use and between samples, if applicable.

- 19 • *Chain-of-custody.* The Permittees confirmation sampling plans shall explain how
20 chain-of-custody will be implemented and followed during all sampling and analysis
21 and provide the following information:

- 22 ○ Sample labeling;
23 ○ Unique sample identification number;
24 ○ Records of sample preparation and integrity prior to sampling;
25 ○ Records of the sample collection (e.g. specific sample location, exact collection
26 time and other pertinent information);
27 ○ Types of container sealing for tamper control;
28 ○ Maintenance of samples;
29 ○ Transportation of shipment to the laboratory;
30 ○ Procedures for filling out of chain-of-custody paperwork;
31 ○ Procedures for accompanying the samples with the chain-of-custody; and
32 ○ Maintenance of records.

- 33
34 • *Sample labeling, packaging and transportation.* The Permittees shall describe the
35 information that will be recorded on all sample labels, including, but not limited to,
36 site location, field identification number, collection date and time, the collector's
37 name and preservation information. The Permittees shall also describe how samples
38 will be packaged and preserved to maintain sample integrity transportation. Lastly,
39 the Permittees shall describe how samples will be transported to the laboratory.

- 1
2 • *Documentation.* The Permittees confirmation sampling plan shall define the records
3 that are required during sampling. The record shall include a bound field logbook,
4 which must be used to document the following sampling information:
- 5 ○ Date and time of entry;
 - 6 ○ Purpose of sampling;
 - 7 ○ Sampling equipment and procedures followed;
 - 8 ○ Names and affiliations of all sampling team members;
 - 9 ○ Name and address of field contact;
 - 10 ○ Sample description;
 - 11 ○ Identification number, location and size of sample collected;
 - 12 ○ Description of sampling point;
 - 13 ○ Date and time of sample collection; and
 - 14 ○ Field observations. The Permittees shall require that all data be recorded in ink.
15 Sketch maps, diagrams and photographs may be attached to the logbook.

16
17 The Permittees confirmation sampling and analytical procedures shall conform to the most recent
18 version of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, (U.S. EPA
19 Publication SW-846).

20 **III.I.4 Soil Sampling**

21 The Permittees shall fully describe the procedures for soil sampling beneath Permitted container
22 storage units that will be used in the event that the potential for soil contamination is identified
23 during waste removal or decontamination activities. The Permittees shall incorporate the same
24 sampling plan elements listed in Permit Condition 3.9.3 *Decontaminating Equipment, Structures*
25 *and Debris* in the soil sampling plan.

26 If the Permittees propose to use a biased or focused sampling approach, samples must be
27 collected from where they will most likely encounter contamination that could exceed the _____
28 criteria. The Permittees shall use site-specific information concerning the potential release (e.g.
29 stained areas, sumps, loading and unloading areas or cracks in the secondary containment),
30 possible preferential pathways for contaminant migration and soil conditions, along with
31 professional judgment, to select appropriate soil sampling locations.

32 The Permittees shall also fully describe the procedures that will be used to confirm clean closure.
33 The Permittees shall incorporate the same sampling plan elements listed in Permit Condition
34 3.9.3 *Decontaminating Equipment, Structures and Debris* in the clean closure confirmation
35 sampling plan.

36 **III.J CONTAINER-SPECIFIC INFORMATION TO BE MAINTAINED AT THE** 37 **FACILITY**

38 The Permittees shall maintain the following container-specific documents and information and
39 all amendments, revisions and modifications to these documents and information in the Facility
40 Operating Record, until closure is completed and certified by a registered professional engineer,:

- 1 • A description of each containment system to demonstrate compliance with container
2 storage area provisions of 40 CFR § 264.173. These descriptions must show the
3 following:
- 4 ○ Basic design parameters, dimensions, and materials of construction;
5 ○ How the designs promote drainage or how containers are kept from contact with
6 standing liquids in the containment systems;
7 ○ Capacities of the containment systems relative to the number and volume of
8 containers to be stored;
9 ○ Provisions for preventing or managing run-on; and
10 ○ How any accumulated liquids will be analyzed and removed to prevent overflow.
11
- 12 • For storage areas that store containers holding wastes without free liquids, a
13 demonstration of compliance with 40 CFR § 264.173(c), including:
- 14 ○ Test procedures and results or other documentation or information to show that
15 the wastes do not contain free liquids and
16 ○ Descriptions of how the storage areas are designed or operated to drain and
17 remove liquids or how containers are kept from contact with standing liquids
18
- 19 • Sketches, drawings, or data demonstrating compliance with 40 CFR § 264.174
20 (location of buffer zones and containers holding ignitable or reactive wastes) and 40
21 CFR § 264.175(c) (locations of incompatible waste), as applicable;
22 • Where incompatible wastes are stored or otherwise managed in containers, a
23 description of the procedures used to ensure compliance with 40 CFR § 264.175(a)
24 and (b) and 264.17(b) and (c); and
25 • Information on air emission control equipment as required by 40 CFR § 270.315.