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Title:	Notice of Deficiency Administrative Completeness and Fee Assessment TA-63 Transuranic Waste Facility Permit Modification Request LANL EPA ID NM0890010515 LANL-11-045
Date Received:	2/3/2012
Addressee Name:	C. Cantwell, ADESHQ
Originator:	Kieling, J.; NMED
Action Item Description:	
Action Due Date:	
Responsible for Action:	Search
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Secretary

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED EP2012-5027

February 1, 2012

Kevin W. Smith, Manager
Los Alamos Site Office
Department of Energy
3747 W. Jemez Rd., MS-A316
Los Alamos, NM 87544

James C. Cantwell, Associate Director
Environment, Safety, Health, & Quality
Los Alamos National Security, LLC
Los Alamos Research Park
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RE: NOTICE OF DEFICIENCY
ADMINISTRATIVE COMPLETENESS AND FEE ASSESSMENT
TA-63 TRANSURANIC WASTE FACILITY
PERMIT MODIFICATION REQUEST
LOS ALAMOS NATIONAL LABORATORY
EPA ID# NM 0890010515
LANL-11-045

Dear Messrs. Smith and Cantwell:

The New Mexico Environment Department (Department) has received the *Permit Modification Request for Technical Area 63, Transuranic Waste Facility, Hazardous Waste Container Storage Unit* (PMR), dated August 18, 2011, from the United States Department of Energy and Los Alamos National Security, LLC, collectively the *Permittees*. The Permittees seek to modify the Hazardous Waste Facility Permit (Permit) for Los Alamos National Laboratory (LANL) for the construction of a new Transuranic Waste Facility (TWF) at Technical Area 63 (TA-63) to store mixed transuranic and hazardous waste. The Department has reviewed the PMR and hereby deems it administratively complete. In addition, the Department is issuing a Notice of Deficiency.

The New Mexico Hazardous Waste Permit and Corrective Action Fee regulations, Section 20.4.2.201.F, require the assessment of a fee to modify a permit at the time of an administrative completeness determination. A fee invoice is attached indicating that the fee is paid and credited

against the FY2011 fee agreement. If you disagree with the fee assessed you may notify the Department in writing at the address above of your intent to appeal the invoice under the provisions of 20.4.2.302 NMAC.

The Permittees must address the attached comments or deficiencies before the Department can further consider the PMR. The Permittees' response to this Notice of Deficiency must include four things: 1) a narrative responding to each of the comments; 2) a revised PDF version of the PMR with changes tracked; 3) a revised PDF version of PMR without tracked changes; and 4) a revised Word version of the PMR without tracked changes.

If you have any questions regarding this correspondence, please address them to Steve Pullen of my staff at 476-6044 or at steve.pullen@state.nm.us.

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

JEK/sdp

Attachments
1) Comments and Deficiencies
2) Fee Invoice

cc w/o attachments:
J. Davis, RPD, NMED
J. Kieling, HWB, NMED
S. Pullen, HWB, NMED
L. King, EPA 6PD-N
T. Grieggs, ENV-RCRA, LANS, MS-K490
M. Haagenstad, ENV-RCRA, LANS, MS-K404
G. Turner, DOE-LASO, MS-A316

File: Reading and LANL Permit 2012

LANL-11-045

ATTACHMENT

NOTICE OF DEFICIENCY

PERMIT MODIFICATION REQUEST FOR TECHNICAL AREA 63, TRANSURANIC WASTE FACILITY, HAZARDOUS WASTE CONTAINER STORAGE UNIT (AUGUST 18, 2011)

LOS ALAMOS NATIONAL LABORATORY

HAZARDOUS WASTE FACILITY PERMIT

Introduction:

The New Mexico Environment Department (Department) provides the following comments regarding the *Permit Modification Request for Technical Area 63, Transuranic Waste Facility, Hazardous Waste Container Storage Unit* (PMR), dated August 18, 2011, from the United States Department of Energy and Los Alamos National Security, LLC, collectively the *Permittees*. The Permittees seek to modify the Hazardous Waste Facility Permit (Permit) for Los Alamos National Laboratory (LANL) for the construction of a new Transuranic Waste Facility (TWF) at Technical Area 63 (TA-63) to store mixed transuranic and hazardous waste.

Section Specific Comments:

1. Section 1.0 inaccurately identifies the permit modification request (PMR) as a Class 2 modification (*see* first sentence). In correspondence dated October 24, 2011, the Department informed the Permittees that the PMR is more appropriately processed as a Class 3 modification. Alter the PMR reference at this Section to reference a Class 3 modification and make a similar alteration at all other applicable locations.

2. Section 1.0 inaccurately states that Table 1-1 provides a list of hazardous waste management unit regulatory requirements and the location in the PMR where the requirements are addressed (*see* second paragraph, third sentence). Table 1-1 inappropriately suggests that the information requirements for containers required at 40 CFR § 270.15 is provided at PMR Section 2.5. PMR Section 2.5 (*Hazards Prevention*) states that it addresses the requirements at § 270.14(b)(8). Revise the table to address the requirements at § 270.15 (*i.e.*, §§ 264.175, 264.175(c), 264.176, 264.177(a), 264.177(b), 264. 177(c), 264.17(b), 264.17(c), and 270.27) for thoroughness and accuracy. If the PMR does not sufficiently address the information requirements at § 270.15, the PMR must be revised to address those issues. Please verify the following relationships:

   264.175 - PMR Sections 2.2.1, 2.2.2, and 2.5.4
   264.175(c) - PMR Sections 2.2.1, and 2.2.2
   264.176 - PMR Section 2.8
   264.177(a) - PMR Section 2.8
   264.177(b) - PMR Section 2.8
   264.177(c) - PMR Section 2.8
   264.17(b) - PMR Section 2.8
   264.17(c) - PMR Section 2.8
   270.27 - PMR Sections 2.5.8 and 2.5.9

3. Section 1.3 specifies that the maximum design storage capacity of the Transuranic Waste Facility (TWF) is 105,875 gallons, but the Section does not provide the basis for that number (*see* second paragraph). Revise the PMR to provide all assumptions associated with the maximum storage capacity determination, *e.g.*, the total square footage of storage space, the storage location limitations, and the container stacking limits.

4. Section 1.3 states that the boundaries of the pad designate the RCRA-permitted portion of the TWF (*see* third paragraph, third sentence). Yet Section 2.2, sixth paragraph, third sentence, states that "the pad will be surrounded by a security fence that will define the

waste storage portion of the unit." Though the Department believes that the boundaries of the pad and the fence are generally the same, the PMR must be revised to be consistent and precise with regard to the boundary of the permitted unit. Provide a figure that identifies the permitted container storage unit portion of the TWF in shading similar to Figure 37 in the Permit. The Section 2.2, sixth paragraph, description of Figure 2-5 depicting "the location of areas where storage will occur highlighted" is not provided. Furthermore, the PMR Attachment G, Section A.6, sixth paragraph, discussion of a similar figure does not provide such a figure.

5. Table 1-1 is erroneous in its reference to § 270.3(b)(20). Alter the reference to § 270.14(b)(20) (*see* page 9).

6. Table 1-1 inappropriately omits reference to an applicable regulation, § 270.14(b)(22). Revise the table to address where in the PMR the regulation is addressed (*see* page 9).

7. Section 2.2 identifies waste management activities that will occur at the TWF (*i.e.*, long-term storage and characterization) and activities that will not occur at the TWF (*i.e.*, waste repackaging). Section 2.2.8.1 states that "waste containers will not be opened at the TWF" and Section 2.2.8.5 commits to modifying the Permit should opening of containers at the TWF be necessary in the future. This information significantly clarifies the purpose of the TWF, its wastes management activities, and the risks associated with those activities. Revise PMR Attachment G, Section A.6, third paragraph, to explain that waste repackaging will not be occurring at the TWF and that waste containers will not be opened at the TWF. Revise Attachment G, Section 3.14.1 to prohibit the opening of containers.

8. Section 2.2 states that the surface area of the TWF will be approximately 28,100 ft^2 (approximately 0.65 acres), yet PMR Attachment F, Table 1 suggests the footprint of the storage structures alone is approximately one-half that square footage and figures depicting the TWF suggest this relationship is incorrect (*see* sixth paragraph, first sentence). Furthermore, Section 2.2.6 states that a portion of the TWF has a footprint of 1.63 acres. Please verify the TWF total area calculation. Revise the PMR Attachment G, Table J-1 for consistency to include a total square footage of the TWF.

9. Section 2.2 references an automatic water sampler associated with the retention basin (*see* seventh paragraph). Section 2.2.1, second paragraph, describes drainage features and the retention basin as "providing containment for the site" and negating "the need for berms, dikes, or sumps around each storage building." Section 2.2.6 and Attachment E also address this water sampler, however, nowhere does the PMR address in detail the purpose of the sampling, what parameters or constituents are to be sampled, or the frequency of sampling. Regulatory requirements at 40 CFR § 264.31 in part require the minimization of non-sudden releases of hazardous constituents to surface waters that could threaten human health or the environment. Permit Section D.7 addresses contingencies should there be an unplanned, non-sudden release from a permitted unit and associated surveillance sampling. Alter the PMR to reference § 264.31 and Permit Section D.7 as being applicable to the sampler and the stormwater and firewater management procedures

proposed in the PMR. Alter the PMR by describing the purpose of an automated sampling, what parameters or constituents are to be sampled, and the frequency of sampling. Furthermore, alter the PMR with a proposal to notify the Department if there is any evidence of waste constituents entering the retention basin and with a proposal to maintain sample analysis information in the TWF operating record.

10. Section 2.2.1 suggests that the southern portion of the TWF will not be utilized to store hazardous wastes and therefore particular precautions in this portion of the Facility are unnecessary (*see* second paragraph, fifth sentence). Provide a figure for inclusion in the Permit that identifies the portions of the TWF where wastes may and may not be stored.

11. Section 2.2.2 references a "mat slab" as a type of a floor for storing containers of waste (see second paragraph, second sentence). Please define "mat slab."

12. Section 2.2.2 references a document titled *Minimum Design Loads for Buildings and Other Structures*. This document must be provided as part of the PMR.

13. Section 2.2.4 addresses characterization trailers but does not specify whether wastes will be stored long-term in these trailers. Note that Attachment G, proposed revision at Permit Section 3.14, states that Trailers 155, 156, and 157 will not utilize secondary containment pallets, suggesting that wastes will be stored long-term in the trailers. Note also that existing Permit Section 3.1(2) states that "for the purposes of compliance with secondary containment requirements, the holding of a hazardous waste container within a permitted unit for a period not to exceed 24 hours, for transportation, treatment, characterization, or packaging, shall not be deemed storage." Revise the PMR to clarify whether wastes will be stored long-term, *i.e.,* greater than 24 hours, in these trailers.

14. Section 2.2.6 states that the retention basin is designed to collect stormwater run-off from only a portion of the TWF (*see* first paragraph). NM's hazardous waste regulations, incorporating 40 CFR § 264.31, require that hazardous waste management units be designed, constructed, maintained, and operated to minimize the possibility of a non-sudden release of hazardous waste or hazardous constituents to all environmental media that could threaten human health or the environment. Revise the PMR in all applicable places to appropriately address stormwater run-off from the entire TWF.

15. Section 2.2.6 states that water collected in the retention basin may be contaminated; however the PMR provides very limited basin design information that demonstrates its ability to minimize leakage. PMR Figures 2-32 and 2-33 provide limited information regarding the basin's slab and walls and Section 2.2.2 implies that a sealant coating will only be applied to concrete floors of the storage buildings. Revise the PMR to address the retention basin design criteria that minimize leakage.

16. Section 2.2.8 states that "bulk liquid wastes will not be accepted at the TWF …" and continues to explain that only limited free liquids will be managed at the facility (*see* first paragraph, third sentence). Section 2.3 reiterates the commitment to not accept bulk liquid

wastes at the TWF. Revise PMR Attachment G, Section 3.14, to include a Permit prohibition on the management of bulk liquid wastes at the TWF that includes a definition of "bulk liquid wastes."

17. Section 2.2.8 and other sections of the PMR reference a document titled *LANL TRU Waste Acceptance Criteria*. This document must be provided as part of the PMR. Furthermore, revise the PMR to define the acronym "WAC" in the text.

18. Section 2.2.8 states that explosive wastes will not be accepted at the TWF, however Attachment A (*Part A*) states that the reactive (*i.e.*, explosive) waste may be stored at the facility (*see* first paragraph, last sentence). Section 2.3 reiterates the prohibition on explosive wastes. Revise the PMR to resolve this inconsistency.

19. Section 2.2.8 states that compressed gas wastes will not be accepted at the TWF; however Table 2-2 references gas cylinder waste in two locations (*see* first paragraph, last sentence). Section 2.3 reiterates the prohibition on compressed gas wastes. Revise the PMR to resolve this inconsistency.

20. Section 2.2.8.2 references the use of "metal" pallets during storage, yet other PMR references to pallets do not make this distinction. Explain the necessity of metal pallets, addressing at a minimum the use of alternative pallet construction materials (*e.g.*, wood) and the pallet stacking limits proposed in the PMR.

21. Section 2.2.8.2 addresses alternative storage configurations due to the segregation of incompatible wastes; however the paragraph does not recognize the Permit Section 2.8.2 requirements associated with the storage of incompatible wastes (*see* third paragraph). Revise the paragraph to reference the Permit Section 2.8.2 requirements.

22. Section 2.2.8.5 inappropriately references Section 2.5.2 instead of Section 2.5.4 in association with run-on and run-off features (*see* first paragraph). Revise the PMR accordingly.

23. Section 2.3 fails to reference the Permit limitations regarding authorized wastes specified at Permit Section 2.2. Revise the PMR accordingly.

24. Section 2.3.2 states that wastes to be managed at the TWF will be subject to the waste verification requirements in Permit Section 2.4.7 and Permit Attachment C. Permit Section 2.4.7(3) limits waste characterization verification of waste characterized solely by acceptable knowledge to wastes managed at TA-54. Revise Attachment G to include a proposed revision to Permit Section 2.4.7(3) to include reference to wastes managed at the TWF.

25. Section 2.5.1 references a document titled *Standard for Reducing Structure Ignition Hazards from Wildland Fire* (*see* second paragraph). This document must be provided as

part of the PMR.

26. Section 2.5.1 proposes "[a]t least 75 feet of defensible space around the unit will be maintained for minimization of exposure to wildland fire per NFPA 1144, *Standard for Reducing Structure Ignition Hazards from Wildland fire.*" Explain whether NFPA 1144 specifically addresses structures managing hazardous and possibly ignitable materials or if it addresses all types of structures including residences.

    The Section also proposes "some vegetation control including grass trimming and shrub cutting … during the growing season." Given the considerable vegetated open space between the TWF and the rim of Two Mile Canyon, that prevailing winds come toward the TWF from the canyon, the north/south orientation of the canyon in the vicinity of the TWF focusing winds toward the TWF, the potential ignitable nature of the wastes stored at the TWF and that mixed TRU waste containers are vented to release explosive vapors, and the recent wildfires impacting LANL and the associated public concern regarding stored wastes, the Department requests an explanation as to why the Permittees are not committing to control all vegetation between the TWF and the canyon rim.

27. Section 2.5.2 fails to reference Permit Section 2.8.1(5) as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 2.8.1(5).

28. Section 2.5.6 fails to reference Permit Section 2.10.1, fifth paragraph, as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to the paragraph in Permit Section 2.10.1.

29. Section 2.5.8 fails to reference Permit Section 3.9 as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 3.9.

30. Section 2.5.9 address monitoring systems capable of determining whether a hazardous waste release has occurred (*see* final two paragraphs). However, the Attachment G, Sections A.6.2, A.6.3, and A.6.4 do not mention the existence of these monitoring systems. Revise Attachment G, Sections A.6.2, A.6.3, and A.6.4 to reference these monitoring systems.

31. Section 2.6 explains that this Section regarding preparedness and prevention addresses the 40 CFR § 264.31 requirement that TWF be designed and operated to minimize the possibility of any unplanned, non-sudden release of hazardous waste or hazardous constituents to, among other things, air and surface water (*see* first paragraph). However, the remainder of Section 2.6 does not mention two monitoring systems designed to minimize releases; the air monitoring systems in the storage buildings and the water monitoring system at the retention basin. Revise the preparedness and prevention discussions at Section 2.6 and at Attachment G, Section A.6.9 to reference the air and water monitoring systems.

32. Section 2.6.1 fails to reference Permit Section 2.10.1 as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 2.10.1.

33. Section 2.6.2 fails to reference Permit Section 2.10.2 as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 2.10.2.

34. Section 2.6.2 inappropriately references Section 2.9 instead of Permit Section 2.10.2 in association with equipment testing and the associated inspection schedule. The result of this apparently inappropriate reference is that the referenced equipment would be tested either daily or weekly instead of the monthly requirement referenced at Permit Section 2.10.2. Revise the PMR accordingly.

35. Section 2.6.3 fails to reference Permit Section 2.10.3 as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 2.10.3.

36. Section 2.6.4 fails to reference Permit Section 3.5.1 as being relevant and applicable. Revise the PMR to specify whether the proposal conforms to Permit Section 3.5.1.

37. Section 2.7 inappropriately implies that emergency equipment at the TWF may be removed as easily as changing an evacuation route (*see* second paragraph, second sentence). Revise the sentence by either deleting the reference to emergency equipment or clarifying that removing emergency equipment will involve a Class 2 permit modification in accordance with 40 CFR § 270.42 Appendix I.

38. Section 2.8 references 40 CFR § 264.177(c) as being the applicable regulation but fails to reference Permit Section 2.8.2, which incorporates § 264.177(c) but includes additional relevant requirements (*see* first sentence). Revise the PMR to specify whether the proposal conforms to Permit Section 2.8.2.

39. Section 2.9, including Subsection 2.9.1.2, misrepresents the daily and weekly inspection schedule requirements of Permit Sections E.1 and E.2. Section 2.9, first sentence, inappropriately uses the term "not in use" to refer to a period when wastes have not been actively managed or handled (*e.g.*, waste received, moved, opened, treated, or removed (at the CSU)) and a weekly inspection is necessary. Permit Section E.1.1 implies that "not in use" is meant to refer to a situation where waste is not present at the CSU for the period. Subsection 2.9.1.2, first sentence, uses the word "or" resulting in the implication that a weekly inspection is not required to occur if waste handling occurred during the week. Permit Section E.2.2 requires a weekly inspection any week waste was present at the unit regardless of whether waste handling occurred. Revise the PMR using the same terminology and inspection scheduling requirements of Permit Section E.1 and E.2.

40. Table 2-2 inappropriately references "Aqueous and Non-aqueous Liquids Contaminated with Heavy Metals and/or Organics (*see* row addressing low-level wastes, column addressing waste streams). Section 2.2.8 states that "bulk liquid wastes will not be

accepted at the TWF ..." Revise the PMR to resolve this inconsistency.

41. Figure 2-5's key refers to a "CSMM Storage Building" (#22) however the figure fails to show the location of this building. Revise the figure appropriately and identify the acronym "CSMM" and the purpose of the building.

42. Figure 2-26 includes an apparent floor drain in the lower right hand corner of the floor plan. Revise the PMR to explain the purpose of this floor drain and to justify its apparent lack of connection to the retention basin.

43. Figure 2-34 identifies two drainage inlets at the southern end of the TWF concrete slab. This drainage system is inconsistent with the PMR proposal to capture stormwater run-off from the northern portion of the TWF and test that fluid for contamination. NM's hazardous waste regulations, incorporating 40 CFR § 264.31, require a hazardous waste management units be designed, constructed, maintained, and operated to minimize the possibility of a non-sudden release of hazardous waste or hazardous constituents to all environmental media that could threaten human health or the environment. Revise the PMR in all applicable places to appropriately address stormwater run-off from the entire TWF.

44. Section 4.0 describes two Solid Waste Management Units (SWMUs) located at TA-63, SWMU 63-001(a) and SWMU 63-001(b). Section 4 is submitted in response to the requirements at 40 CFR 270.14(d); however the Section does not explain why SWMUs at TA-63 are the only units addressed in the PMR. The PMR must be revised to address two additional SWMUs located near TA-63 that may or may not have a direct impact on the TWF, SWMU 50-009 (*a.k.a.* MDA-C) and SWMU 52-002(e). Regarding SWMU 50-009, LANL's July 2011 MDA-C Phase III Investigation Report, Figure 6.2-1, suggests a organic vapor plume extends under the proposed TWF site. The PMR Section 4 discussion of the MDA-C vapor plume must at a minimum address the following; all evidence that the plume does or does not exist at the site, a listing of all measured or potential vapor plume contaminants that are or may impact the site, whether the Permittees propose to verify the existence of the plume at the site as depicted in various figures in the Report (e.g., Figure 6.2-1), the potential for the plume to continue migrating toward the site, the necessity of monitoring plume migration toward or within the site, existing or potential future risks to human health at the site including a discussion of potential pathways of human exposure to hazardous constituents and including vapor intrusion into a building, the potential magnitude and nature of human exposure associated with the plume, and the need to establish a contaminant baseline to be used in association with a hypothetical future release or during site closure.

45. Section 4 must also include a discussion of SWMU 52-002(e). This SWMU overlaps SWMU 63-001(a) (*see* Middle Mortandad/Ten Site Aggregate Investigation Report, Revision 2, dated February 2008, Figure F-82-11) and for consistency and thoroughness must be addressed to the same level of detail as SWMUs 63-001(a) and 63-001(b). Department records indicate this SWMU was deemed to require no further action (NFA)

on December 8th, 1997.

46. Section 4.2 references two corrective action documents to describe the status of SWMUs 63-001(a) and 63-001(b) (LANL, 1990; LANL, 1992). The Section also references corrective actions that occurred in 1995 and 2004, but fails to identify documents associated with those actions (*see* Section 4.2.1.2, third paragraph, first sentence). The Section must be augmented to both accurately reflect the current corrective action status of the SWMUs and to reference all applicable documents. Include reference to the Middle Mortandad/Ten Site Aggregate Investigation Report, Revision 2, dated February 2008, summarizing the applicable findings of the Report regarding the SWMUs. Include also reference to the Department's June 30, 2011 correspondence concurring with LANL's certification that corrective action is complete for the SWMUs.

47. Figure 4-1 includes the locations of SWMU 63-001(a) and SWMU 63-001(b). Revise the figure to include the locations of SWMU 50-009 and SWMU 52-002(e).

48. Section 5.0 identifies the applicable permit parts and regulations associated with closure. The Section neglects to identify 40 CFR Part 264, Subpart I. Revise the section to reference the Subpart.

49. Attachment A (*Part A, Hazardous Waste Permit Information Form*) fails to identify the applicable process code for the Technical Area 63 TWF. The Department assumes the applicable process code is S01, *Container Storage*. Revise the form appropriately.

Attachment F (*Closure Plan*) Comments:

50. Section 1.0 fails to mention that all structures and equipment, including the concrete pad, will be removed from the permitted portion of the TWF at closure as specified at Section 5.3.2. As this is a major consideration at closure, the introduction section must be revised accordingly.

51. Section 2.0 is a brief description of the TA-63 TWF Unit; however the Section inappropriately does not reference the more extensive TA-63 TWF Unit description in Attachment A. Revise the Section to reference Attachment A.

52. Section 2.0 inappropriately references Figure 2-5 instead of Figure 55 (*see* first paragraph, last sentence). Because the Section is proposed to be included in the Permit together with Figure 55, whereas Figure 2-5 is not proposed to be included in the Permit, the PMR must be revised accordingly.

53. Section 2.0 distinguishes structures undergoing closure from those that will not undergo closure; however the two lists are inaccurate. The list titled *Unit to be Closed* inappropriately includes structures that will not manage hazardous wastes, *i.e.*, the Forklift Charging Station, the Calibration Source and Matrix Module, and the Equipment Storage Shed. The list titled *Other* inappropriately includes structures that will manage hazardous

wastes, *i.e.*, the Canopy.

54. Section 2.0 uses the term "intra-site waste receiving and shipping area" *(see* third paragraph, fourth sentence*)*; however this is the only PMR reference to the term and the term is not defined or identified on a figure. Revise the PMR accordingly.

55. Section 2.0, list titled *Other TWF Structures*, references a "Canopy Building." This is the only PMR reference to the canopy being a building, and, being a structure without walls, causes confusion when referred to as a "building." Revise the PMR accordingly.

56. Section 4.1 inappropriately does not include an "and" between subsections a and b. Revise the PMR accordingly.

57. Section 4.2 cites 40 CFR § 264.112(e) and its allowance for "removing hazardous wastes and decontaminating or dismantling equipment in accordance with an approved closure plan may be conducted at any time before or after notification of closure" (*see* first paragraph, second sentence). Because the portion of this sentence suggesting wastes may be removed at any time after notification conflicts with other scheduling commitments in the Section and with the schedule in Table 2, this sentence must be revised to remove the contradiction.

58. Section 4.2 proposes special closure considerations for "transportainers" (*see* first paragraph, third sentence). Transportainers are not referenced elsewhere in the PMR. Transportainers may be proposed in the future to be included at the TWF through a separate PMR and the sentence may be proposed at that time. Revise the PMR to remove the reference to "transportainers."

59. Section 4.2 proposes to notify the Department of closure at least 45 days prior to beginning the closure process (*see* second paragraph, first sentence); however, Table 2 proposes to notify the Department of the initiation of closure at the time closure is initiated. Revise the Section to include the Permit definition of when closure begins (*i.e.*, "initiating removal of waste from a permitted unit for the purpose of closure") and revise the sentence to be consistent with Table 2.

60. Section 4.2 includes schedules for the following; conducting a records review and structural assessment, removing all stored wastes, and beginning decontamination (*see* third paragraph). These proposed schedules are inconsistent with Permit Section 9.4 and conflict with PMR Attachment F, Table 2. Revise the PMR to state; that all wastes will be removed from the TWF within 90 days of initiating waste removal, that a records review will occur after initiating waste removal and before a structural assessment, and that a structural assessment will occur after removal of all wastes and before decontamination.

61. Section 4.2 states that closure processes demonstrate adherence to the closure performance standard at Permit Section 9.2 (*see* third paragraph, last sentence). Because that permit

section addresses both clean closure at Section 9.2.1 and non-clean closure at Section 9.2.2, and because closure plans must initially be written to achieve clean closure, the PMR Section must be revised to reference Section 9.2.1 instead of 9.2.

62. Section 4.2 includes two conflicting sentences addressing the schedule for submitting a closure report; one sentence referencing 180 days after initiating closure activities and the other sentence referencing 240 days after initiating closure (*see* fourth paragraph, first two sentences). Permit Sections 9.4.1.1 and 9.5 together allow no more than 240 days after initiating closure to submit the report and this is consistent with Table 2. Revise the Section accordingly.

63. Section 4.2 addresses the closure schedule as does Table 2, yet the Section does not reference the Table. Revise the Section to reference the Table as appropriate.

64. Section 5.2.2 identifies locations undergoing a structural assessment to include flooring or building materials (*see* second sentence). Permit Part 9 considers the TWF to be an outdoor pad consisting predominately of an outdoor area where waste are managed and occasionally stored long-term. This outdoor pad is considered equivalent to a floor and subject to a structural assessment. Furthermore, because the retention basin may hold fluids contaminated with hazardous constituents, and because a crack in that basin may cause significant environmental harm, the retention basin must also undergo a structural assessment. Revise the Section so that the structural assessment includes the outdoor pad and the retention basin.

65. Section 5.2.2 states "if evidence of a release or damage is present, a wipe sample or representative sample of the media (e.g., concrete chip) will be collected …," suggesting verification sampling will occur immediately without an associated modification to the closure plan (*see* last sentence). Permit Sections 9.4.6 and 9.4.6.2 both require that if a structural assessment identifies a release or damage, the sampling and analysis plan of the closure plan will be modified through a permit modification request to include the location of the release or damage. Revise the sentence accordingly.

66. Sections 5.3.1 and 5.3.2 propose both to decontaminate equipment and structures at the TWF and to remove those equipment and structures. Because neither the regulations nor the Permit require the decontamination and decontamination verification of structures and equipment removed during closure, the commitment to perform these activities must be withdrawn from the closure plan and left to the Permittees' discretion. Revise these and all related sections of the PMR accordingly.

67. Section 5.3.2 inappropriately references an asphalt pad (*see* second paragraph, first sentence). Revise the PMR accordingly.

68. Section 5.3.2 addresses dust suppression procedures to restrict the spread of hazardous constituents (*see* third paragraph, first sentence). Because the concrete pad will be removed at closure as described earlier in this Section, it is unclear why the Section

proposes to perform dust suppression. Furthermore, if small areas of concrete are to be removed to sample the substrate, the Section must include a commitment to prevent cross contamination during the removal process. Revise the Section accordingly.

69. Section 5.3.2 addresses removing the concrete pad but fails to address how areas of concern identified during the structural assessment will be located after pad removal. Revise the Section accordingly.

70. Section 5.4 addresses equipment used during decontamination activities. Because Permit Section 9.4.7 does not require closure plans address the decontamination of these materials, and because it appears that the process of decontamination is unnecessary during closure of the TWF (see Comment 62), this Section is unnecessary and should be removed from the closure plan. Revise the PMR accordingly.

71. Section 6.0 addresses the "verification criteria" to be used for closure of the TWF. This Section incorrectly replaces the closure performance standards identified at Section 4.1, it inappropriately introduces the concept of "baseline/background" levels, and it inappropriately addresses decontamination (*see* Comment 62). Revise the PMR accordingly.

72. Section 6.1 proposes that TWF soil contamination may be addressed through alternative requirements contained in a separate enforceable document. Permit Section 9.2.2.2 allows for the use of alternative requirements only at outdoor units collocated with regulated units. Permit Section 9.2.2.3 address outdoor units *not* collocated with regulated units (*e.g.*, the TWF) and the Permit Section requires soil contamination be addressed through a modified closure plan, not a separate enforceable document. The only separate enforceable document addressing corrective action and contemplated to date is the 2005 Consent Order, and the SWMUs addressed in that CO associated with the TWF have been found to require no further action. Revise the PMR by removing the Section. Furthermore, in accordance with Permit Part 9, it is inappropriate to discuss "decontamination" in association with soils and instead decontamination should only refer to the process of cleaning structures and equipment.

73. Section 7.0 addresses the constituents to be analyzed during closure. Section 7.4 also addresses the constituents to be analyzed for during closure, however the two sections are inconsistent. The discussion of the issue is unnecessary at Section 7.0. Revise the Section accordingly.

74. Section 7.1 inappropriately addresses decontamination procedures associated with structures and equipment (*see* Comment 62). Specifically, the first paragraph, the second sentence of the second paragraph, and the eighth paragraph address decontamination verification procedures. Furthermore, the title of the Section is inappropriate. Revise the PMR accordingly and alter the Section title to *Soil Sampling Locations*.

75. Section 7.1 inappropriately references a nonexistent section, Section 7.5 (*see* second paragraph, third sentence). Revise the Section accordingly.

76. Section 7.1 states that 30 samples will be taken from the concrete pad because 27000 divided by 900 is 30 (*see* fifth paragraph, fourth sentence). Figure F-2 suggests the collection of far more than 30 samples. Revise the PMR to resolve this discrepancy and specify the precise number of soil samples required.

77. Section 7.1 states that biased samples collected due to the structural assessment will replace the associated 900 ft^2 random sample (*see* fifth paragraph, fifth sentence). Permit Part 9 requires biased samples be collected in addition to random sample (see Permit Section 9.4.7.1.ii) and existing closure plans similarly require biased samples be collected in addition to random sample (see G.5, Section 6.1, last paragraph, last sentence). Revise the PMR accordingly.

78. Section 7.1 addresses the valley gutter used to collect run-off from the northern portion of the TWF. The Section fails to reference the biased sampling requirement for open conveyance drainage systems at Permit Section 9.4.7.1.ii(8). Revise the PMR accordingly.

79. Section 7.1 references a nonexistent permit part number and a nonexistent permit condition (*see* sixth paragraph, first sentence). Revise the PMR accordingly.

80. Section 7.1 states that "all regulated waste management will occur in permitted buildings" (*see* sixth paragraph, fourth sentence). This statement is inconsistent with other sections in the PMR and its purpose is unclear. Revise or remove the language from the PMR accordingly.

81. Section 7.1 implies that the retention basin will not be removed and instead a single wipe sample will be collected at the discharge point (*see* sixth paragraph, sixth sentence). PMR Section 5.3.2 discusses removal of all structures and the concrete pad at the TWF. With the removal of the structures and the pad there can be no use for the retention basin. Furthermore, because of the potential for contaminated soils beneath the basin caused by hydraulic forces and potentially contaminated fluids, the retention basin must be removed and appropriate soil samples must be collected. Revise the PMR Section accordingly with a minimum of three soil samples collected below the axis of the basin.

82. Section 7.1 references a nonexistent permit part number (*see* seventh paragraph, first sentence). Revise the PMR accordingly.

83. Section 7.1 addresses soil sampling associated with liquid discharge points, concrete and rock drainage structures, an uncurbed portion of the pad, and Figure F-2 (*see* seventh paragraph). This description of pad drainage is unique and does not conform to Figure F-2. Furthermore, Figure 2-34 suggests that drainage from the southern portion of the TWF

will be collected in stormwater drains. Revise the PMR for consistency.

84. Section 7.2 references the *Facility sampling plan*. Section 7.4.2 also references the plan. This document must be provided as part of the PMR.

85. Sections 7.2.1 and 7.2.2 address liquid and wipe sampling procedures respectively. As addressed in comments above, decontamination verification samples appear unnecessary. Revise the PMR accordingly.

86. Section 7.2.3 address the depths at which soil samples will be collected. The proposed soil sample depths are inconsistent with the requirement at Permit Section 9.4.7.1.ii to collect soil samples at the interface between the fill and native soil or tuff. Revise the PMR to conform to the permit condition.

87. Section 7.3.1.3 states that sample locations will be included in a sample logbook. The Section does not address how these sample locations will be determined. Due to the importance of correctly identifying sample locations, particularly considering all surface structures are to be removed prior to sampling, the PMR must specify how sample locations will be determined.

88. Section 7.3.2 references a nonexistent table (Table G.10-6). Revise the PMR accordingly.

89. Section 7.4 addresses the chemical analytes to be measured at closure. The Section inappropriately references Table 4 as a list of hazardous constituents managed at the permitted unit over its operational history; the unit is new and has no operational history. Revise the Section to reference the list of hazardous constituents associated with the 449 waste codes proposed to be managed at the unit and included in Attachment A, the TA-63 TWF Part A permit application. At the time of closure, the Permittees may submit a permit modification request to limit the list to the constituents actually managed at the unit if it can be demonstrated that unit's operating record is complete (*see* Permit Section 9.4.7.1(3)). Furthermore, the Section must be revised to include a determination at the time of closure of all underlying hazardous constituents (as defined at 40 CFR § 268.2(i)) managed at the unit (*see* Permit Section 9.4.6.1, first paragraph).

90. Section 7.4.1 references a nonexistent Section (Section 7.5.2). Revise the PMR accordingly.

91. Section 7.4.2.1 identifies field quality control sample types that *may* be collected at closure. Revise the Section to affirmatively identify the field quality control sample types that will be collected at closure.

92. Section 7.4.2.1 refers to a nonexistent table (Table 7). Revise the PMR accordingly.

93. Section 8.0 refers to two nonexistent tables (Table G.10-3 and G.10.4). Revise the PMR accordingly.

94. Section 9.0 addresses the closure certification report. The Section neglects to address all reporting requirements at Permit Section 9.5. Revise the PMR to reference adherence to the requirements at Permit Section 9.5.

95. Section 11.0 references LANL's *Screening Level Ecological Risk Assessment Methods* (LANL, 1999). This document is not otherwise referenced in the PMR. Revise the Section to remove the reference and remove all other referenced documents not referenced earlier in the PMR.

96. Section 11.0 references NMED's *Technical Background Document for Development of Soil Screening Levels*, Rev. 4.0 (NMED, 2006). Revise the Section to instead reference Revision 5.0 of said document, dated 2009 (*see* NMED/HWB web site, *Guidance Documents*), or the most current NMED guidance document.

97. Table 3 states that the disposal option for low-level radioactive solid waste is "[e]ither an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA, or an authorized off-site radioactive waste disposal facility." As this disposal option is the subject of a LANL appeal of the November 2010 LANL Hazardous Waste Facility Permit, the PMR must include a commitment to revise this language in accordance with the final resolution of the appeal.

98. Table 8 includes a reference to transportainers not otherwise referenced in the PMR and states that "[d]isposal of waste items may include recycle or re-use …." The table contradicts a statement at PMR Section 5.3.1, "… portable equipment that can be used in other waste management units will not be decontaminated …." As stated in an earlier comment, neither the regulations nor the Permit require the decontamination and decontamination verification of structures and equipment removed during closure and therefore the commitment to perform these activities must be withdrawn from the closure plan and left to the Permittees' discretion. Revise the PMR by removing Table 8 and associated references.

99. Figure F-1 is a closure flowchart that includes a reference to decontamination and decontamination verification. As stated in comments above, neither the regulations nor the Permit require the decontamination and decontamination verification of structures and equipment removed during closure and therefore the reference to these procedures in the flowchart must be removed.

Attachment G (*Proposed Revisions*) Comments:

100. Proposed permit parts section fails to address the storage location limitations for ignitable, reactive, or incompatible wastes at the TWF, as is done for all other permitted units at Permit Section 2.8. Revise the PMR accordingly by in part referencing Proposed Figure

54.

101. Proposed Permit Section 1.5 misidentifies the date of the PMR. Revise the PMR to reference August instead of July.

102. Proposed Permit Section 3.14.1 identifies the permitted storage location at the TWF; however the Section must be revised to also reference the receiving canopy, the storage building, the storage and characterization building, and the characterization trailers. Revise the PMR accordingly.

103. Proposed Permit Section 3.14.1(1) requires that containers with free liquids be stored on secondary containment pallets except in the characterization trailers; however it does not explain why nor does it fully specify associated waste management requirements. Revise the proposed Section to reference Permit Condition 3.1(2), which is the basis for the proposal and includes additional associated waste management requirements.

104. Proposed Attachment A language is inappropriately written in the future tense. The Permit generally describes current requirements and does not proscribe procedures to be implemented in the future unless specifically included in a compliance schedule. Revise the PMR so that proposed revised Permit language is in the current tense instead of future tense, similar to the remainder of the language in Attachment A.

105. Proposed Section A.6 inappropriately references a "waste management unit" (*see* first paragraph, second sentence). Revise the PMR to instead reference a "hazardous waste management unit," which is a defined term in Permit Section 1.8.

106. Proposed Section A.6 states that the TWF will be approximately 28,100 ft^2 (*see* sixth paragraph, first sentence). See previous comment regarding the surface area of the TWF.

107. Proposed Section A.6 inappropriately references Figure 2-5 (*see* sixth paragraph, second sentence). First, Figure 2-5 is not a figure included in Attachment G and proposed to be included in the Permit. Second, Figure 2-5 contains unnecessary information and is inconsistent with other figures in the Permit. Revise the PMR by changing this reference to Figure 55 and altering Figure 55 at a minimum by highlighting areas where storage will occur and depicting the TWF security fence consistent with the Figure key, *i.e.*, with cross hatching. Figure 55 could also be used to illustrate security fencing and gates at the TWF and so should be referenced in PMR Section 2.4 instead of Figure 2-36. Furthermore, propose a modification to Permit Section 2.5 that includes a reference to Figure 55.

108. Proposed Section A.6.1 describes stormwater control at the TWF (*see* second paragraph). The Section is inconsistent with the description of controls in Attachment F, Section 7.1, which discusses concrete and rock drainage structures and an uncurbed portion of the pad. Revise the PMR to resolve this inconsistency.

109. Proposed Section A.6.1 states that wastes will not be stored on the southern portion of the TWF (*see* second paragraph, last sentence). This description of where wastes will be stored is inconsistent with the remainder of the PMR which generally reference either the concrete pad or within the security fence. Furthermore, the canopy loading and unloading area is in the southern portion of the TWF and the PMR discusses storing wastes at or near the canopy. Revise the PMR to resolve this inconsistency.

110. Proposed Section A.6.2 inappropriately references Figure 2-6. Figure 2-6 is not a figure included in Attachment G and proposed to be included in the Permit. Revise the PMR by identifying all figures that need incorporation into the Permit (*e.g.*, TA-63 location map, TA-63 TWF, typical container storage building floor plan), number the figures consecutively following the last figure number in Permit Attachment N, and provide those figures in PMR Attachment G.

111. Proposed Section A.6.4 describes the physical and operational aspects of the characterization trailers. The Section does not specify whether regulated wastes will be stored long-term in these trailers. Revise the Section to clarify the use of these trailers to store wastes.

112. Proposed Section A.6.6 describes the retention basin, an associated automated sampling system, and the potential for influent to be contaminated. The control of releases to surface water is required at 40 CFR § 264.31. Revise the Section to fully describe the purpose and operation of the automated sampling system. Furthermore, fully describe criteria used to determine when to drain the basin (e.g., contaminant levels, potential for overflow) and describe measures to ensure the basin does not leak.

113. Proposed Section A.6.7 addresses the Operations Support Building and references the monitoring of "key operational parameters" and "specific structure, system, and component (SSC) status." Section A.6.9 references a "facility monitor/control system." Revise the PMR to identify the operational parameters and SSCs necessary to ensure safe and appropriate waste management, and clarify whether these are same monitoring systems referenced in Section A.6.9.

114. Proposed Section A.6.9 generally identifies the emergency equipment at the TWF. Revise the Section's second paragraph to reference the applicable section of Permit Attachment D (*Contingency Plan*) as being the location in the Permit addressing the specific types and locations of emergency equipment at the TWF.

115. Proposed Section A.6.9 includes a paragraph addressing fire control equipment that references fire hydrants supplied with a minimum water volume and pressure (*see* sixth paragraph). The Section fails to mention the wet-pipe sprinkler system and the associated 125,000 gallon storage tank and fire pumps referenced at PMR Section 2.5.1. Revise the PMR accordingly.

116. Proposed Section A.6.9 states that MSDSs will be available at "operations areas." This is the only reference to "operations areas" in the PMR. Revise the PMR to specify what and where these areas are.

117. Proposed Section A.6.10, third paragraph, second sentence, utilizes the abbreviation "e.g.," which inappropriately implies that secondary containment for containers holding free liquids might be something other than secondary containment pallets. PMR Sections A.6.2 and 2.2.2 commitment to using secondary containment pallets as the sole method of secondary containment at the TWF. Revise the PMR by, in this instance, replacing "e.g." with "i.e."

118. Proposed Attachment D (*Contingency Plan*) lists spill control equipment. Permit Section 2.10.1 requires particular types of spill control equipment and PMR Attachment G, Section A.6.9 also references spill control equipment not listed in Attachment D. Revise Attachment D to include all spill control equipment maintained at the TWF.

119. Proposed Attachment J includes a table with proposed general information associated with the TWF. So that the general information associated with the TWF is consistent with other permitted units, revise the table to include the total square footage of the unit.

120. Proposed Figure 55 depicts the physical layout of the TWF. The Figure's depiction of the TWF security fence is not consistent with the Figure's key (*i.e.*, no cross hatch). Revise the PMR accordingly and by referencing this figure in the PMR section on security (Section 2.4) instead of Figure 2-36, and propose a modification to Permit Section 2.5 (*Security*) that includes a reference to this Figure. Furthermore, because the Attachment G makes numerous references to building numbers, this Figure's key must be revised to reference those numbers.

New Mexico
Environment Department
Hazardous Waste Bureau

Los Alamos National Lab
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Attn: Cindy Maze

February 1, 2012

Invoice # - HWB-LANL-11-045

Permit Modification Request for the Addition of the Transuranic Waste Facility at Technical Area 63 to the Los Alamos National Laboratory Hazardous Waste Facility Permit, August 18, 2011

Quantity	Item	Item Cost	Total Cost
1	Storage in Containers - Renewal or Modification	$24,000.00	$24,000.00
		Total Fees	$24,000.00
		Adjustment	$0.00
		Pay This Amount	**$24,000.00**

PAID BY
SUPPLEMENTAL FEE
AGREEMENT
FEBRUARY 1, 2012

Make Checks Payable to: NMED/HWB

Mail Checks and Invoice to:

New Mexico Environment Department, HWB
Attn: James Valdez
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505

State of New Mexico Use Only:

Date Received: _____
Check Number: _____
Amount Received: _____

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ENVIRONMENT DEPARTMENT

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2905 Rodeo Park Drive East - Building 1
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