

**Technical Area 54, Building 38, West
Class 2 Permit Modification Request
General Responses to Comments**

I. Purpose and Necessity for the Permit Modification Request

The Permit Modification Request (PMR) proposes to increase storage capacity at two permitted units at the Radioassay and Nondestructive Testing Facility (RANT) located at Technical Area (TA)-54-38 West. If approved, the PMR would increase the capacity of the indoor unit from 3,740 gallons (68 55-gallon drum equivalents (DE)) to 4,950 gallons (90 DE), and increase the outdoor capacity from 11,660 gallons (212 DE) to 42,570 gallons (774 DE). The total capacity of the two units at RANT would be 47,520 gallons (864 DE).

The stated purpose and necessity for the PMR is “to enable the two permitted units at TA-54-38 WEST to have increased storage capacity to facilitate and expedite off-site shipment of TRU mixed waste to WIPP and enable DOE/NNSA to meet the obligations set forth under the Framework Agreement.”

The PMR states that the increased capacity of approximately 400% “represents the maximum quantity of waste that could physically be stored at the unit within safety basis requirement limitations”; that it is “consistent with the maximum capacity basis that exists at other container storage units at LANL (i.e., the total storage area at the unit)”; and that “[i]t ensures that capacity at the units directly relate to the physical capacities of the units, thus decreasing the likelihood that storage volumes will lead to noncompliance with the permit conditions.”

The PMR proposes that although the Permittees expect an increase in the number of shipments per week of approximately 200%, “[t]he ability to store a volume of TRU mixed waste that is greater than the number of shipments expected to be completed within a week is vital to expediting the loading/shipping of waste to WIPP” and that “[i]ncreased storage capabilities might be essential due to [un]expected events that impact the ability of LANL to ship TRU waste off-site such as delay or shutdown due to transport issues, storm events, security concerns, and receipt facility delays of as short as two weeks.”

The PMR complies with the requirements at 40 CFR 270.42(b), and adequately addresses the information required by 270.13 through 270.15.

40 CFR 270.42(b)(1)(iii) requires the Permittees to explain why the modification is needed. The PMR justifies a 400% increase in the capacity at RANT by stating that:

- This increase is “consistent with the maximum capacity basis that exists at other container storage units at LANL”;

- The Permittees may need increased storage capabilities in the event that shipping delays occur that are beyond the Permittees' control; and
- The increased capacity is necessary to meet the shipping goals set forth in the Framework Agreement, as well as shipping needs into the future.

A. Consistency with maximum capacity basis at other units

The PMR states that the capacity requested “represents the maximum quantity of waste that could physically be stored at the unit within safety basis requirement limitations.” The Permittees have not provided the safety basis for the RANT because it is not a requirement for RCRA permits; nor have they provided any other information to support this argument. Therefore, the Department cannot consider this information in making a decision.

B. Need for increased storage capabilities in case of unexpected shipping delays

The Department recognizes that unexpected events may “impact the ability of LANL to ship TRU waste off-site such as delay or shutdown due to transport issues, storm events, security concerns, and receipt facility delays of as short as two weeks.” The Department received the following comment from Southwest Research and Information Center (SRIC): “Only if NMED believes that additional “flexibility” should be provided, up to the requested 42,570 gallons (774 DE), would SRIC suggest that the additional 14,850 gallons (270 DE) (42,570 gallons – 27,720 gallons) could be allowed as “surge storage,” somewhat similar to what is provided in the WIPP Permit Section 3.1.2.3 and Table 3.1.2.” Under this option, the Permittees would notify the Department, providing a justification for the surge storage, and send an email to stakeholders. The Department has determined that this is a reasonable option, and has approved a “normal” storage capacity at the outdoor CSU of 29,160 gallons with an “excess” storage capacity of 13,410 gallons. For a more thorough discussion of this option, see Section II, *Excess Storage Capacity*, below.

SRIC's comments also mention that during a phone call the Permittees stated another reason for the large increase is the potential for a “major problem in [TA-54 Material Disposal] Area G that would preclude moving waste to RANT for such a significant period of time.” This is not discussed in the PMR, and the Department is not aware of any problems at Area G that would require transfer of waste to RANT, and therefore agrees with SRIC that this is not a valid justification for the increased capacity.

C. The increased capacity is necessary to meet the goals of the *Framework Agreement* and future shipping needs.

This claim is not adequately justified by the PMR. As noted in SRIC's comments, “almost 1,800 cubic meters of Area G waste is being handled in the 12 months of Federal Fiscal Year 2013 (that also included the WIPP maintenance outage) without the RANT capacity expansion.” Based on the Permittees' quarterly status reports for the Framework Agreement, by October

2013 there will only be 1,106 cubic meters of the 3,706 left to ship. This equates to about 126 full shipments of 55-gallon drums, or about three shipments per week between October 2013 and June 2014. Even with a scheduled winter WIPP maintenance outage of up to six weeks, the Permittees should be able to accomplish this goal without an increase in storage capacity at RANT.

SRIC proposes “an increase to 27,720 gallons (504 DE), which would provide enough storage for the equivalent of 36 TRUPACT-IIs with 55-gallon drums. Along with the 6 TRUPACT-IIs of DEs that can be stored in the Indoor Unit, RANT could store 42 TRUPACT-IIs-worth of waste at any one time or 32,670 gallons... Such a large amount of storage should be more than sufficient for foreseeable circumstances and is a reasonable, justifiable increase.”

NMED agrees, in principle, that a lesser increase in capacity is reasonable under normal operating conditions. The Department is therefore approving an increase in capacity to 29,160 gallons at the outdoor unit, with an option to store up to 13,410 additional gallons of waste as “excess storage capacity.” For a more thorough discussion of this option, see Section II, *Excess Storage Capacity*, below.

II. Excess Storage Capacity

The Department is approving the PMR with the following modifications, adding excess storage capacity to Permit Section 3.12.1, Section A.4.3.2 in Attachment A, and Table J-1 in Attachment J:

- **3.12 TA-54 CONTAINER STORAGE REQUIREMENTS**

3.12.1 General Operating Conditions

TA-54 West

The Permittees may store mixed TRU wastes in sealed Nuclear Regulatory Commission (NRC) certified Type-B shipping containers at the TA-54 West Outdoor permitted unit without secondary containment and weather protection.

The Permittees may use the Outdoor Pad excess storage capacity listed in Attachment J, Table J-1, only as specified in Permit Attachment A, Section A.4.3.2 (see 40 CFR § 270.32(b)(2)).

The Permittees shall send a notification to the Secretary upon using the excess storage capacity that provides justification for its use. The Permittees shall send the notification to the e-mail notification list as specified in Permit Section 1.13.

- **A.4.3.2 TA-54 West Outdoor Pad**

The Permittees shall coordinate shipments with WIPP in an attempt to minimize the use of excess storage capacity at the outdoor pad. However, the Permittees may utilize excess storage capacity for up to 59 days as specified in Attachment J, Table J-1, when at least one of the following unexpected events occur that impacts the Permittees’ ability to transport waste to WIPP:

- Unexpected delays or shutdowns at WIPP;
- Storm events;
- Security concerns; or
- Other transportation issues (e.g., TRU waste shipping containers unavailable)

The Permittees must notify the Secretary and those on the e-mail notification list (as specified in Permit Sections 1.13 and 3.12.1) upon using the excess storage capacity and provide justification for its use (see 40 CFR § 270.32(b)(2)).

- **Table J-1**

Unit Identifier	Process Codes	Operating Capacity	General Information	Type of Unit
TA-54-38 West Outdoor Pad	S01	7,920 29,160 gal	Includes loading dock and Pad surrounding Total square footage – 37,900	Outdoor (not associated with a regulated unit)
<u>TA-54-38 West Outdoor Pad</u>	<u>S01</u>	<u>13,410 gal</u>	<u>Excess storage capacity Included in total square footage above</u>	<u>Outdoor (not associated with a regulated unit)</u>

The calculations for “normal” versus “excess” capacity are as follows:

Assuming that all waste at the RANT is stored in standard waste boxes (SWBs), based on information in the PMR each shipment would be 2,430 gallons. The normal capacity at the outdoor CSU would be 29,160 gallons, which is equivalent to 12 shipments of waste (29,160 / 2,430 = 12). The excess capacity would be 13,410 gallons, which is equivalent to approximately 5 ½ shipments (13,410 / 2,430 = 5.519). Coupled with the indoor capacity of 4,950 gallons,

which is equivalent to approximately two shipments of SWBs, the Permit would allow storage of 14 shipments of SWBs under normal operating conditions and 19 ½ shipments of SWBs if excess storage capacity is used.

In 55-gallon drum equivalents (DE), the indoor storage capacity would be 90 DE; the normal outdoor storage capacity would be approximately 530 DE; and the approximate excess capacity would be an additional 244 DE.

The Department has determined this is a reasonable approach that meets both the needs of the Permittees and the concerns of the stakeholders.

Upon approval of the PMR, the Permittees shall submit a revised Part A Application Form reflecting these changes, to be incorporated into Permit Attachment B.

II. Protection of Human Health and the Environment

The PMR adequately addresses all the requirements in 40 CFR 270.42(b) and the Department has determined that the increased storage capacity at RANT will not adversely impact human health and the environment.

The Department received comments from SRIC and Nuclear Watch New Mexico (NWNM) regarding increased risk associated with radionuclides. The comments from NWNM acknowledge “that, in the complicated Department of Energy (DOE) regulatory environment, the New Mexico Environment Department (NMED) has no authority over radionuclides.” The Department regulates hazardous and mixed waste only at LANL.

Regarding comments about the safety basis, the Department has no regulatory authority, and the Permittees are not required to submit that documentation as part of any PMR. The Department does, however, encourage the Permittees to provide that information when requested by stakeholders.

SRIC commented that they know “that there is risk from managing waste at RANT, and the request certainly has not provided any risk assessment, let alone one that shows no risk or no increased risk from having more mixed waste at the site at any one time.” 40 CFR 270.14(b)(8) requires the Permittees describe procedures, structures, and equipment used to: prevent hazards in unloading operations; prevent runoff from hazardous waste handling areas to the environment; prevent contamination of water supplies; mitigate effects of equipment failure and power outages; prevent undue exposure of personnel to hazardous waste; and prevent releases to the atmosphere. The PMR, combined with existing language in the Permit, adequately describe these controls.

III. Part A Application

The Permittees submitted a revised Part A Application Form during the public comment period, updating Amendment 12.0 of the Form “to include the increase in the operating capacities for both the TA-54- 38 West Indoor Unit and the TA-54-38 West Outdoor Pad.” Amendment 12.0 was submitted on August 26, 2013, as a Class 1 permit modification, and was subsequently withdrawn by the Permittees on September 13, 2013. On the same date, the Permittees submitted Amendment 14.0 as a Class 1 permit modification.

Upon approval of the PMR, the Permittees shall submit a revised Part A Application Form to update Amendment 14.0 reflecting the approved changes to the RANT operating capacities, which will be incorporated into Permit Attachment B.