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LANL Permit  
TA-55 Temporary  
Authorization



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**MEMORANDUM**

**DATE:** November 8, 2012

**TO:** John Kieling, Chief, HWB

**CC:** Dave Cobrain, HWB  
Reading and LANL Permit 2012

**FROM:** Tim Hall, Environmental Specialist-A, HWB

**SUBJECT:** LANL TA-55 Temporary Authorization Request

This memo summarizes my review and analysis of the Temporary Authorization (TA) Request (Request) submitted by the LANL Permittees on October 15, 2012 via Certified Mail, and the supplemental information they submitted on November 6, 2012 via email.

**Purpose and Rationale for the Request**

The stated purpose of the Request is “to conduct a short-term waste repackaging campaign at TA-55.” The rationale for the Request is: “DOE/LANS has recently identified a one-time limited opportunity at TA-55 to process the majority of its STP backlog, i.e., nine (9) drums of STP MTRU waste, during a limited time window – between November 2012 and March 2013.” The Request also states that LANL has not been able to process this waste “previously because: (1) TA-55 does not have a permitted unit with the necessary safety authorization or capabilities to perform the required procedures; and (2) the waste could not be transported to another facility within LANL or elsewhere for the required processing, because the containers, as-stored, do not meet internal TA-55 and/or DOT requirements.”

**Regulatory Requirements for the Request and Approval of the Request**

The Permittees are requesting a TA to allow storage of hazardous waste in Room 432 for a period not to exceed 180 days under 40 CFR §270.42(e)(2)(i)(A). NMED may approve such a TA without public notice or comment. If a Class 2 Permit Modification Request (PMR) is also submitted for the activity, NMED may extend the TA for another 180 days. Since the Permittees



did not submit a PMR, if NMED approves the TA, NMED may not grant an extension, and therefore the Permittees must complete the activity within 180 days.

Under 40 CFR §270.42(e)(2)(ii), TA requests must include: (A) A description of the activities to be conducted under the temporary authorization; (B) An explanation of why the temporary authorization is necessary; and (C) Sufficient information to ensure compliance with 40 CFR part 264 standards. Section 1.2 of the Request discusses the activities the Permittees are proposing under the TA. Section 1.3 discusses why the Permittees believe a TA is necessary to conduct those activities. Section 1.4 discusses where in the Request compliance with 40 CFR part 264 standards are addressed. The Permittees also state that many of the 40 CFR part 264 standards will be met by conditions in the current Permit.

To issue a TA, NMED must find that the TA is necessary to meet at least one of the five objectives listed in 40 CFR §270.42(e)(3)(ii)(A-E). The Permittees state that the Request meets three of the five objectives:

*B. To allow treatment or storage in tanks or containers, or in containment buildings in accordance with 40 CFR Part 268.* The Permittees are requesting to store and repackage waste in containers in Room 432, which is not a permitted storage unit.

*C. To prevent disruption of ongoing waste management activities.* The Request states: “Completion of the [sorting, segregating, and repackaging] activities will also support other temporary authorization objectives by minimizing disruption of ongoing waste management activities at TA-55.”

*E. To facilitate other changes to protect human health and the environment.* The Request states that the TA will facilitate “protection of human health and the environment via the removal of MTRU waste from TA-55 storage.”

NMED informed the Permittees that, although it is not required, there would be at least a 30-day public notice/comment period for the TA.

### **Analysis of the Request**

NMED received the Request on October 15, 2012. On October 19, 2012, NMED sent an email to the Permittees asking several questions that needed to be addressed before the start of the public notice/comment period. The Permittees responded to these questions on November 6, 2012.

One of NMED’s outstanding questions not answered by the Request was why LANL cannot repackage the waste across the street at TA-50 in the WCRRF. Section 1.3 of the Request states that the TA is needed for three reasons: (1) the 1.9 cubic meters (nine 55-gallon drums) of STP-covered MTRU waste needs to be repackaged because they “either exceed the Special Nuclear Material limit or are not in DOT approved containers”; (2) because this waste is not in DOT approved containers it “cannot be shipped for processing or disposal outside of TA-55”; and (3) there is not a viable on-site option because “the seven RCRA-permitted storage units at TA-55

do not have the necessary safety features for sorting and segregation, and repackaging of MTRU waste.”

In its October 19, 2012 email, NMED requested documentation and justification, including internal and/or DOT requirements that prevent LANL from moving the waste to another LANL facility. In response to NMED’s question regarding repackaging at WCRRF, the Permittees stated: “WCRRF lacks the necessary facilities and equipment for performing the prerequisite safety evaluation; those facilities are located at TA-54. Therefore, MTRU waste to be remediated at WCRRF first must be sent to TA-54 for the safety evaluation.” They also state: “None of the nine waste drums are DOT-approved shipping containers. DOE Order 460.1C, Section 4.C requires that *all transfers “onsite” comply with DOT requirements or an approved Transportation Safety Document.* This includes transfers from TA-55 to TA-54 or TA-50. Therefore, it is not feasible to ship these drums to TA-54 for the required pre-WCRRF safety evaluation because none of the nine waste drums included in the October 15, 2012 request are DOT approved shipping containers.”

The italicized phrase above is important because of the conjunction “or.” According to DOE Order 460.1C, a Transportation Safety Document (TSD) is something that can be “approved by the Head of Operations Office or Field Office/Site Office Manager, as appropriate.” Have the Permittees obtained TSDs to transfer waste between technical areas in containers that are not DOT-approved before? If so, why isn’t it *appropriate* to get a TSD in this instance? Why isn’t overpacking these containers into a DOT approved 85-gallon drum an option?

The Permittees’ response also states: “LANL safety requirements prohibit WCRRF from accepting MTRU waste containers for remediation if they contain certain constituents (such as hydrogen or volatile organic compounds [VOCs]) in excess of specified limits, or if they have other safety hazards that might prevent the processing of the waste container. The pre-WCRRF safety evaluation includes headspace gas analysis and collection of radiological data. WCRRF lacks the necessary facilities and equipment for performing the prerequisite safety evaluation; those facilities are located at TA-54. Therefore, MTRU waste to be remediated at WCRRF first must be sent to TA-54 for the safety evaluation.”

Why isn’t this safety evaluation required for Room 432? The Permittees did not cite or provide the “LANL safety requirements” that prohibit WCRRF from processing this waste, nor do they explain why such processing would be allowed in Room 432.

Section 1.2 (page 7) of the Request states: “This is an inventory of STP-listed waste that has been maintained in permitted RCRA storage for several years.” However, Table 1 of the response to NMED’s questions indicates an accumulation start date of April 2011 for *seven of the nine containers*. Why did they package MTRU waste a year and a half ago that cannot be shipped offsite knowing that they have no Permit to process this waste? They should have known the waste would not meet WIPP WAC or DOT requirements. How/when did they discover these seven drums did not meet the WIPP WAC and DOT requirements? What controls are in place to stop this from happening in the future? If they have no way to prevent this in the future, they

need a Permit modification not a TA, because they will have more containers with no path forward.

The Permittees' response to NMED's questions states: "Even if the drums were DOT-compliant and underwent the pre-WCRRF safety evaluation, WCRRF is unavailable for processing these drums until the 3706 TRU Waste Campaign is completed. There are no available time windows during which the nine TA-55 drums might be processed until the campaign is completed. Thus, even if these drums could be shipped to WCRRF for remediation, the activity would have a negative impact on the 3706 TRU Waste Campaign schedule."

The Permittees have not provided evidence that processing nine drums at WCRRF or TA-54 would have a negative impact on the schedule for processing the 18,000 drum equivalents in that campaign. What about the other newly generated waste they have been shipping to WIPP? How many containers have there been? What is the impact of those on the campaign?

### **Conclusion**

As stated above, NMED must determine that the TA is necessary to meet one of the objectives in 40 CFR §270.42(e)(3)(ii)(A-E). Based on the information provided by the Permittees, I cannot argue definitively that the TA is necessary to meet either objective B (storage in containers) or C (prevent disruption of ongoing waste management activities). The Permittees have other facilities at LANL that can process the waste, and they have not provided justification for why the waste cannot be transferred to one of those facilities. The 1.9 cubic meters represents approximately .05% of the total waste in the TRU Waste Campaign. The Permittees have not provided evidence that processing nine containers of MTRU waste at TA-54 and/or WCRRF is going to disrupt those operations. The Permittees also have not provided sufficient justification that removing the waste from safe storage at TA-55 meets Objective E: protection of human health and the environment.

### **Options**

Option 1. Determine that the TA is necessary to meet at least one of the objectives in 40 CFR §270.42(e)(3)(ii)(A-E) and issue the TA for public comment. This option requires NMED to accept without additional justification and/or documentation at least one of the following arguments:

A. The waste must be repackaged in Room 432 because there is no other viable option at LANL. The waste cannot be transferred to another facility at LANL because it does not meet DOT requirements and the Permittees do not have a TSD to transfer the waste. Even if the waste could be transferred to another facility at LANL, it would disrupt the schedule of the 3706 TRU Waste Campaign.

B. Repackaging the waste in Room 432 so it can be shipped to WIPP is more protective of human health and the environment than leaving it in storage at TA-55 until another option becomes available.

Option 2. Before issuing a public notice, request additional documentation and/or justification to support the arguments that the waste cannot be transferred to another facility at LANL and that even if it could be transferred it would disrupt the schedule of the 3706 TRU Waste Campaign.

Option 3. Determine that the TA is not necessary to meet at least one of the objectives in 40 CFR §270.42(e)(3)(ii)(A-E) and deny the Request.

Option 4. Determine that the Permittees should submit a PMR to permit Room 432 for storage and/or treatment. This would allow the Permittees to request a TA and also allow for public input. There is approximately 41 cubic meters of STP-covered MTRU waste at TA-55. Presumably, the waste is still there because it needs some kind of processing (e.g., treatment, repackaging, etc.) before it can be shipped to WIPP. Having a permit to do these activities at TA-55 will facilitate removal of that waste.