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Hazardous Waste Bureau

Mr. Jeffrey M. Kendall  
Office of General Counsel and Environmental Policy  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, NM 87502-5469

Subject: Response to Information Request to Terminate Compliance Order HWB 09-31

Reference: DOE Letter CBFO: OESH: GTB: ANC: 13-0722: UFC 5400.00 from George W. Hellstrom, Legal Counsel, U.S. Department of Energy, Carlsbad Field Office and Dennis N. Cook, General Counsel, Nuclear Waste Partnership LLC, dated March 28, 2013, Subject: Request to Terminate Compliance Order HWB 09-31

Dear Mr. Kendall:

The purpose of this letter is to provide you with responses to some comments from the New Mexico Environment Department (NMED) Waste Isolation Pilot Plant (WIPP) Staff on the referenced letter concerning the request to terminate WIPP Compliance Order HWB 09-31.

Comment: Provide a copy of current training material for Real Time Radiography (RTR) operators at Los Alamos National Laboratory (LANL).

Response: Radiography operators implementing these Permit requirements at LANL are current in their training and qualifications. Training and qualification of RTR personnel is discussed in Section 5.3 page, of the Final Audit Report of the Los Alamos National Laboratory Central Characterization Project (Audit Number A-13-23) provided to the NMED on November 4, 2013.

Comment: Items 16, 10 and 11 are not completed as stated in the letter.

Response: The Permittees are requesting closure of these items to terminate the subject compliance order.

- Item 16 of the Partial Stipulated Final Order (PSFO) (dated 12/21/09) was modified and superseded by Item 11 of the Stipulated Final Order (SFO) (dated 05/12/10) and is no longer applicable. Item 16 is therefore obsolete as of issuance of the SFO on May 12, 2010, and can be considered closed.
- Item 10 of the SFO requires all remaining containers from waste stream LA-MIN03-NC.001 to be remediated in accordance with approved LANL procedures prior to shipment to the WIPP facility. As a result of the SFO, LANL procedures were modified to require remediation of all containers from waste stream LA-MIN03-NC.001.



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All containers from waste stream LA-MIN03-NC.001 that have been shipped to the WIPP facility since May 12, 2010, have been remediated in accordance with approved LANL procedures.

Since the SFO was issued, a permit modification to clarify the liquid waste prohibition was approved by the NMED. The applicable LANL procedures were modified to implement these changes and approved by the U.S. Department of Energy – Carlsbad Field Office (CBFO). These procedures effectively implement requirements for remediation of liquids in excess of the allowable limit for all waste streams generated at LANL. It is the contention of the Permittees that the procedures are also adequate for remediating containers from waste stream LA-MIN03-NC.001 containing observable liquids in excess of the allowable limit, and therefore there is no need to manage waste stream LA-MIN03-NC.001 differently than any other waste stream generated at LANL. Therefore the Permittees request closure of this item.

Since the SFO was issued a high-energy real-time radiography unit has been deployed at LANL and will be used to characterize the containers in this waste stream. This unit provides improved resolution and thereby facilitates identification of liquids and prohibited items that may be present in the waste. Radiography operator training and Independent Technical Review procedures have also been improved since the SFO was issued. These improvements resulted in part from clarifications made by the NMED to the radiography requirements during the WIPP Permit renewal process in 2010. These changes include ensuring containers and prohibited items in training drums are representative of the waste being characterized at the facility, improvements to the accuracy Quality Assurance Objective for radiography, and ensuring independence of replicate scans and independent observations. These changes are included in the Permit Sections C1-1, C3-2a, and C-4a(1).

- Item 11 of the SFO (which modified paragraph 16 of the PSFO) requires information for each remediated container from waste stream LA-MIN03-NC.001 to be submitted to NMED before the container is shipped to the WIPP facility. This information has been completed and submitted on a lot basis for every container from this waste stream that has been remediated and shipped to the WIPP facility since the SFO was issued on May 12, 2010.

As pointed out above, since the SFO was issued, a permit modification to clarify the liquid waste prohibition was approved and the applicable LANL procedures were modified and approved by the CBFO. It is the contention of the Permittees that the LANL modified procedures are also adequate for identifying those containers from waste stream LA-MIN03-NC.001 which contain observable liquids in excess of the allowable limit so they can be remediated. Characterization data resulting from implementation of these procedures are available for confirmation in accordance with Permit Attachment C7, TRU Waste Confirmation and are also available at the annual LANL recertification audits for review. Therefore, providing these data is a redundant oversight activity and provides no added benefit. There is no need to manage waste stream LA-MIN03-NC.001 differently than any other waste stream generated at LANL. Therefore the Permittees request closure of this item.

**Comment:** What is the basis for the 110 drums of the 550 total drums.

**Response:** The basis was an assumed 20% failure rate ( $550 \times 0.2 = 110$ ). This is a rough estimate based on past experience from remediating containers from this stream. This estimate was used only to develop the cost estimate.

**Comment:** The language is not clear regarding why the PSFO and SFO no longer apply.

**Response:** The Permittees are requesting closure of the Compliance Order so that the PSFO and the SFO are no longer deemed applicable as stated in the March 28, 2013, letter. The Permit was revised to address the NMED's concerns relative to liquids as required by the PFSO. The revised Permit became effective on April 1, 2010, and includes the following language: "Observable liquid shall be no more than 1 percent by volume of the outermost container at the time of radiography or visual examination." The Permittees are requesting the opportunity to determine whether observable liquid is present in excess of 1 percent of the outermost container at the time of radiography of containers in the LA-MIN03-NC.001 waste stream in accordance with the requirements of the WIPP Permit. Currently remediation is completed on every drum from this waste stream prior to radiography as mandated by the SFO. In reality, only about one in five actually requires remediation. The SFO imposes additional drum handling and processing which increases the radiological risk to workers, delays waste shipment, and is costly. The Permittees contend that the modified Permit assures that the containers from waste stream LA-MIN03-NC.001 are properly characterized and those with prohibited quantities of liquids are identified for remediation. Consequently, the actions required by the PSFO and SFO are no longer needed and result in unnecessary remediation of containers which do not contain prohibited quantities of liquids.

Containers that do not meet the conditions of the liquid prohibition will have nonconformance reports (NCRs) written against them. Language was added to the Permit to ensure appropriate disposition of containers with NCRs: "For each container selected for confirmation in accordance with the Permit Attachment STET, the Permittees will examine the respective NCR documentation to verify NCRs have been dispositioned for the selected containers." With these changes and the others added to the Permit in response to the stipulated orders there is no need to manage the LA-MIN03-NC.001 waste stream differently than other waste streams.

The Permit and program improvements described above have addressed concerns originally raised by the NMED concerning this waste. Termination of this compliance order will expedite removal of this waste from LANL, minimizing the inherent risk of storage and remediation at LANL. Termination of this compliance order will not result in any adverse impacts to human health or the environment for the following reasons;

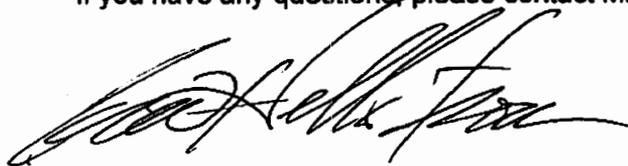
- Waste will be characterized in accordance with the Permit
- The Permit and implementing procedures have been revised to address the compliance order
- Improved radiography equipment deployed at LANL will facilitate identification of prohibited items
- The LA-MIN03-NC.001 waste stream is an aqueous waste that was solidified to meet WIPP Waste Acceptance Criteria requirements. It is well characterized (see CCP-AK-LANL-004) and is not ignitable, reactive, or corrosive.
- The absorbent materials used to solidify this waste are earthen materials (diatomaceous earth or perlite) that are commonly used as absorbent media in enclosed containers for solidification of liquid wastes and maintain liquids within the waste matrix.

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If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.



Sincerely,



George W. Hellstrom, Legal Counsel  
U.S. Department of Energy, CBFO

Dennis N. Cook, General Counsel  
Nuclear Waste Partnership LLC

cc:

Ryan Flynn, NMED           \*ED  
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