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*State of New Mexico*  
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**Hazardous Waste Bureau**

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Cabinet Secretary  
J. C. BORREGO  
Deputy Secretary

**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

December 28, 2017

Todd Shrader, Manager  
Carlsbad Field Office  
Department of Energy  
P.O. Box 3090  
Carlsbad, New Mexico 88221-3090

Bruce C. Covert, Project Manager  
Nuclear Waste Partnership, LLC  
P.O. Box 2078  
Carlsbad, New Mexico 88221-2078

**RE: NMED APPROVAL OF THE ADVANCED MIXED WASTE TREATMENT PROJECT  
(AMWTP) FINAL AUDIT REPORTS, A-15-01, A-16-01, AND A-17-04  
WASTE ISOLATION PILOT PLANT  
EPA I.D. NUMBER NM4890139088**

Dear Messrs. Shrader and Covert:

On December 16, 2014 and March 5, 2015, the New Mexico Environment Department (“NMED”) notified the Department of Energy’s Carlsbad Field Office (“CBFO”) and Nuclear Waste Partnership LLC (“NWP”) (collectively “the Permittees”) of its decision to suspend the review and approval of final audit reports that had been submitted to NMED and memorialized that all future final audit report reviews would be suspended until such time that there was compliance with, or resolution of Administrative Compliance Order (“ACO”) 14-21. On February 28, 2017, NMED notified the Permittees that review of final audit reports would once again commence as a result of NMED’s review of corrective actions that were taken by the Permittees in accordance with the January 22, 2016 Stipulated Final Order and Settlement Agreement associated with ACO 14-21. This letter addresses the final audit reports from the Advanced Mixed Waste Treatment Project (“AMWTP”).

NMED received the Final Audit Report for Audit A-15-01 on December 1, 2014, in a letter dated November 25, 2014, the Final Audit Report for Audit A-16-01 on September 7, 2015, in a letter dated September 6, 2016, and the Final Audit Report for Audit A-17-04 on July 14, 2017, in a letter dated July 12, 2017. The Permittees were required to submit the Final Audit Reports under

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the Waste Isolation Pilot Plant (“WIPP”) Hazardous Waste Facility Permit (“Permit”), as specified in Permit Section 2.3.2.3.

The intended scope of Audits A-15-01, A-16-01, and A-17-04 were to ensure the continued adequacy, implementation, and effectiveness of the AMWTP waste characterization for contact-handled (“CH”) Summary Category Group (“SCG”) S3000 homogeneous solids and SCG S5000 debris wastes relative to the requirements of the WIPP Permit. The scope for Audit A-17-04 was revised to also include the review of SCG S4000 soils/gravels.

The Final Audit Reports consisted of the following items:

- A narrative report;
- Completed copies of relevant Permit Attachment C6 checklists;
- List of final AMWTP standard operating procedures; and
- Objective evidence examined during the audit.

NMED representatives observed Audit A-15-01 on October 7-9, 2014, Audit A-16-01 on October 27-29, 2015, and Audit A-17-04 on December 12-16, 2016. Additionally, NMED has examined the Final Audit Reports for evidence of compliance with the requirements of Permit Sections 2.3.1 (Waste Analysis Plan (“WAP”)) and 2.3.2 (Audit and Surveillance Program).

On December 20, 2017, CBFO submitted a letter notifying NMED that the CBFO Office of Quality Assurance conducted Surveillance S-18-16 at AMWTP, specifically a re-evaluation of the Enhanced Acceptable Knowledge (“AK”) process, to reassess the indeterminate conditions identified during Audit A-17-04. The letter stated that the Surveillance concluded that the AK indeterminate conditions have been adequately addressed and based on these results requested that NMED review and approve the outstanding AMWTP Audit Reports.

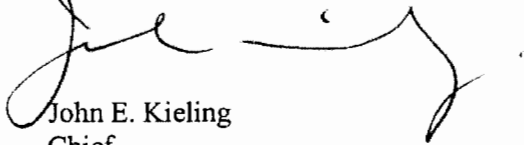
Attached are NMED’s general comments and conclusions based upon observation of the audits and reviews of the Final Audit Reports. Based on NMED’s reviews and conclusions, NMED hereby approves AMWTP Final Audit Report A-15-01, Final Audit Report A-16-01, and Final Audit Report A-17-04. However, NMED will review the status of the WAP related observation found during Audit A-17-04 and discussed further in the attached comments, during the next AMWTP Audit. NMED also amends the previous final audit report approval for Final Audit Report A-14-01 issued by NMED on January 27, 2014, to include only those waste forms and processes evaluated by these recertification audits.

The audit report approvals for Final Audit Report A-15-01, Final Audit Report A-16-01, and Final Audit Report A-17-04 are approvals of the broad programmatic implementation of waste characterization requirements at AMWTP, and do not constitute approval of individual waste characterization procedures, or inappropriate applications of those procedures. These approvals do not relieve the Permittees of their obligation to comply with the requirements of the permit or other applicable laws and regulations.

Messrs. Shrader and Covert  
AMWTP A-15-01, A-16-01, and A-17-04  
December 28, 2017  
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If you have any questions regarding this matter, please contact Ricardo Maestas at (505) 476-6050.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc w/attachment:

R. Maestas, NMED HWB  
D. Biswell, NMED HWB  
H. Tellez, NMED HWB  
S. Lucas-Kamat, NMED DOEOB  
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T. Peake, EPA ORIA  
G. Basabilvaso, CBFO  
M. Brown, CBFO  
J.R. Stroble, CBFO  
File: WIPP '17

**NMED COMMENTS AND CONCLUSIONS FOR THE  
ADVANCED MIXED WASTE TREATMENT PROJECT (AMWTP)  
FINAL AUDIT REPORTS A-15-01, A-16-01, AND A-17-04**

**AMWTP Audit A-15-01: October 7-9, 2014**

Interim Audit Report A-15-01, issued by CBFO on October 30, 2014, indicated that the audit team identified eight non-WAP related concerns consisting of four conditions adverse to quality (“CAQ”) and documented on corrective action reports (“CARs”), two concerns were identified resulting in minor isolated deficiencies that were corrected during the audit (“CDA”), and two recommendations were offered for management consideration.

Final Audit Report A-15-01 verified that the AMWTP program for waste characterization and certification activities continues to be adequate, satisfactorily implemented, and effective. The audit team identified no WAP-related concerns or deficiencies during the audit.

NMED concludes that Final Audit Report A-15-01 demonstrates that AMWTP has implemented the applicable characterization requirements of the WAP during the applicable timeframe.

**AMWTP Audit A-16-01: October 27-29, 2015**

Interim Audit Report A-16-01, issued by CBFO on November 19, 2015, indicated that the audit team identified 10 non-WAP-related concerns during the audit. Five of the ten concerns were classified CAQs and were documented on CARs. Two observations were identified and three recommendations were offered for management consideration.

Final Audit Report A-16-01 verified that the AMWTP program for waste characterization and certification activities continues to be adequate, satisfactorily implemented, and effective. The audit team identified one potential WAP related CAQ resulting in the issuance of CAR 16-008 associated with Real-time Radiography (“RTR”). The deficiency was further discussed with the CBFO National TRU Program and it was concluded that the CAQ was not WAP-related. No other WAP-related concerns or deficiencies were identified during the audit.

NMED concludes that Final Audit Report A-16-01 demonstrates that AMWTP has implemented the applicable characterization requirements of the WAP during the applicable timeframe.

**AMWTP Audit A-17-04: December 12-16, 2016**

Interim Audit Report A-17-04, issued by CBFO on February 9, 2017, identified six non-WAP-related concerns during the audit. Five of the six concerns were CAQs and documented as CARs and one observation was offered for management consideration.

According to Final Audit Report A-17-04, the audit team looked at several additional areas of interest specific to AMWTP. The team evaluated activities performed by the former AMWTP management and operating (“M&O”) contractor, Idaho Treatment Group (“ITG”), in place at the time of previous Audit A-16-01, and the current M&O contractor, Fluor Idaho LLC. The team also evaluated current procedures implemented by Fluor. The team verified, based on evidence

provided by Fluor, that the procedures reviewed adequately address the WAP and Quality Assurance Program Document requirements. The audit team also evaluated the incorporation of the following CCP characterization methods/processes into the Fluor program:

- Visual examination ("VE") of SCG S3000, S4000, and S5000 wastes at the Accelerated Retrieval Project ("ARP") facilities
- RTR of SCG S4000 waste generated at the ARP

The VE of SCG S3000, S4000 and S5000 waste was found to be satisfactorily implemented by AMWTP. AMWTP has not characterized SCG S4000 waste utilizing the RTR process; therefore, until objective evidence implementation can be evaluated, RTR of S4000 waste is indeterminate.

The AK process implementation of enhanced AK was also evaluated. No objective evidence was available for review to verify the enhanced AK requirements for completion of AK Assessments ("AKAs") Interface Waste Management Documents Lists ("IWMDLs") and the Waste Stream Profile Form ("WSPF") for S4000 ARP Soils. Draft documents were reviewed, but until all enhanced AK requirements are implemented, the AK process has been deemed indeterminate. Other technical activities evaluated for Final Audit Report A-17-04 continue to be satisfactorily implemented and effective in all areas of the AMWTP certified program.

The audit team identified no WAP-related deficiencies. The audit team did have one WAP-related observation in the area of AK: The Fluor AK procedure, MCP-4010, Revision 0, *Collection Review, and Management of Acceptable Knowledge Documentation*, section 1.2, states in part, "AMWTP develops AK documents for legacy waste, AMWTP newly-generated waste, and waste that is received from non-AMWTP generator," which clearly identifies that it applies to both AMWTP and non-AMWTP waste. As used in the procedure, the term "non-AMWTP waste" can be misleading. Although the audit team confirmed the procedure meets applicable requirements, the procedure should either be clarified or the term "non-AMWTP waste" be selectively removed as appropriate upon the next revision. Examples include the section 4.9 and 4.10 section headings. Use of this procedure as written, specific to the reference, could lead to a condition adverse to quality.

NMED concludes that Final Audit Report A-17-04 demonstrates that AMWTP has implemented the applicable characterization requirements of the WAP during the applicable timeframe, with the exception of AK. NMED understands that AK was deemed indeterminate based on the results of Audit A-17-04. NMED also understands that the Permittees will continue to assess the progress of the AK process in the coming months and ultimately complete a thorough review of AK in the next recertification audit.