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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

March 17, 2017

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**RE: NMED APPROVAL OF THE IDAHO NATIONAL LABORATORY/CENTRAL  
CHARACTERIZATION PROGRAM (INL/CCP) FINAL AUDIT REPORTS,  
AUDIT A-14-18, AUDIT A-15-18, AND AUDIT A-16-18  
WASTE ISOLATION PILOT PLANT  
EPA I.D. NUMBER NM4890139088**

Dear Messrs. Shrader and Breidenbach:

On December 16, 2014 and March 05, 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, 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 Idaho National Laboratory/Central Characterization Program (INL/CCP).

NMED received the Final Audit Report for Audit A-14-18 on August 19, 2014, in a letter dated August 15, 2014, the Final Audit Report for Audit A-15-18 on December 4, 2015, in a letter dated December 3, 2015, and the Final Audit Report for Audit A-16-18 on December 8, 2016, in

a letter dated December 7, 2016. The Permittees were required to submit the Audit Reports under 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-14-18, A-15-18 and A-16-18 were to ensure the continued adequacy, implementation, and effectiveness of the INL/CCP waste characterization for contact-handled (CH) Summary Category Groups (SCGs) S3000 homogeneous solids, S4000 soils/gravel, S5000 debris wastes, and remote-handled (RH) SCGs S3000 homogeneous solids and S5000 debris wastes relative to the requirements of the WIPP Permit. NMED representatives observed Audit A-14-18 on June 3 - 5, 2014, Audit A-15-18 on June 16 - 18, 2015 and Audit A-16-18 on June 14 - 16, 2016, and has examined the 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).

#### INL/CCP Audit A-14-18

According to Final Audit Report A-14-18, the audit team verified that that INL/CCP program for waste characterization and certification activities continues to be adequate, satisfactorily implemented, and effective. The Final Audit Report discussed NMED's submittal of an Observer Inquiry relating to Acceptable Knowledge (AK) documentation, which is discussed further below. The audit team identified no WAP-related concerns during the audit.

The Interim Audit Report A-14-18, issued by CBFO on June 27, 2014, indicated that the audit team identified six non-WAP-related concerns during the audit. The six non-WAP-related concerns consisted of: three conditions adverse to quality resulting in corrective action reports (CARs) related to required training/reading, the wrong revision of a procedure being used, and an incomplete attachment; one deficiency, isolated in nature and requiring only remedial corrective action that was corrected during the audit (CDA) relating to inconsistencies between two AK Source Document Summaries; one observation requesting a revision to a procedure for completeness; and one recommendation offered for management consideration relating to clarifying an AK Summary Report.

On August 5, 2014, NMED submitted an Observer Inquiry for concerns regarding waste processing by the host site prior to the waste being characterized by the CCP program, and how these activities may affect AK documentation in the certified CCP Waste Characterization Program. On September 4, 2014, CBFO submitted its Responses to the Observer Inquiry. On December 16, 2014, the Permittees were notified that NMED was suspending the review of the CBFO Responses to the Observer Inquiry and the review of Final Audit Report A-14-18. On February 28, 2017, NMED notified the Permittees of the commencing of reviews of final audit reports and requested that the CBFO Responses to the Observer Inquiry "be reviewed and amended as needed to include updated information if appropriate", and further stated that "NMED will review the amended responses to NMED's Observer Inquiry as part of the review of the INL/CCP Final Audit Report as provided for in Attachment C6, Section C6-4 of the Permit." On March 16, 2017, CBFO submitted its Revised Submittal of the Responses to the Observer Inquiry.



NMED has reviewed the Revised Responses and hereby notifies the Permittees that the Observer Inquiry has been satisfactorily addressed. With the Observer Inquiry addressed, NMED concludes that Final Audit Report A-14-18 demonstrates that INL/CCP has implemented the applicable characterization requirements of the WAP during the applicable time frame.

#### INL/CCP Audit A-15-18

According to Final Audit Report A-15-18, the audit team verified that the INL/CCP program for waste characterization and certification activities continues to be adequate, satisfactorily implemented, and effective. The audit team evaluated the enhanced INL/CCP Interface program which includes the interfaces, roles, responsibilities and program requirements applicable to both organizations in support of CCP waste characterization activities at INL with no concerns identified. The audit team identified one WAP-related condition adverse to quality resulting in the issuance of CAR15-050 and one WAP-related CDA. NMED will check the status of these WAP-related concerns during the next INL/CCP Audit.

- CAR 15-050: A discrepancy resolution (DR), DR006, for waste stream IN-ID-BT0-030 was written to address the process steps used to solidify the fines generated during the destructive examination of post-irradiation fuel assemblies at Bettis. The DR documents an interview with two employees involved in this activity which contradicts the actual step by step process used to conduct the solidification. The narrative in the DR and the Attachment 3 Summary both contain an incorrect source document number for the step by step instructions. The resolution described in the DR, which is to follow the procedure in AK Source Document U221, is correct. In addition, AK Source Document P132 describes another general contaminated liquid solidification process. The Attachment 3, AK Source Document Summary, incorrectly indicates that this process was used for solidification.
- CDA2: A discrepancy resolution, DR002, for waste stream ID-RF-S5300-RH addresses the hazardous waste numbers (HWNs) assigned by CCP as compared to those assigned earlier by the INL 3100M<sup>3</sup> project AK Report and appropriately justifies those that have been added. This discrepancy resolution and accompanying AK Source Document Summary should be revised to provide the final listing of HWNs. The AK Source Document Summary for DR002 and the AK Source Document Discrepancy Resolution, AK Attachment 11, were revised to show the final assignment of HWNs.

The Interim Audit Report A-15-18, issued by CBFO on July 14, 2014, indicated that the audit team identified five non-WAP-related concerns consisting of two CDAs relating to updating and revising a nonconformance sheet and data form and three recommendations offered for management consideration relating to updates and clarifications to three procedures and an AK Summary Report.

NMED has reviewed the WAP-related CAR 15-050 closure documentation and concurs with CBFO on its closure. NMED concludes that Final Audit Report A-15-18 demonstrates that

INL/CCP has implemented the applicable characterization requirements of the WAP during the applicable timeframe.

#### INL/CCP Audit A-16-18

According to Final Audit Report A-16-18, the audit team verified that that INL/CCP program for waste characterization and certification activities continues to be adequate, satisfactorily implemented, and effective. The audit team determined through interview with the INL/CCP Project Manager that INL Site management and operating (M&O) responsibilities have recently been awarded to a new contractor. RH waste characterization activities will remain the responsibility of CCP and CH waste characterization activities have been transferred to the new contractor.

The A-16-18 Final Audit Report covers the evaluation of the CCP program for RH waste characterization activities that are currently being performed and that were supported by the previous M&O contractor. The report also covers the evaluation of CH waste characterization activities that were performed up through October 1, 2015.

The audit team evaluated the enhanced INL/CCP Interface program, which includes the interfaces, roles, responsibilities and program requirements applicable to both organizations in support of CCP waste characterization activities at INL with no concerns identified. The Interface program is adequate to provide for coordination between CCP and the new contractor regarding operations and RH waste characterization. Waste management activities and CH waste characterization that is performed by the new contractor, as well as the new contractor's program, will be evaluated during a separate audit of the Advanced Mixed Waste Treatment Project (AMWTP). The AMWTP Audit was conducted in December 2016 and NMED is awaiting the submittal of the final audit report. NMED review and conclusion of the AMWTP Final Audit Report will follow under separate correspondence.

According to the INL/CCP Final Audit Report, a significant part of the AK portion of the audit was dedicated to the review of the Interface Waste Management Documents List (IWMDL) for RH waste streams ID-HFEF-S5000-RP and ID-HFEF-S3000. The IWMDL requirement was a major addition to CCP-TP-005, Rev. 27, *CCP Acceptable Knowledge Documentation*. The objective is to work with the site to develop and maintain "a current list of generator site plans, procedures, and reports associated with current waste management and packaging (e.g., waste management, waste generation, waste treatment, waste packaging, waste repackaging, waste remediation, waste stream delineation, and waste characterization procedures)", that have the ability to affect waste stream characterization and certification activities.

A second major review activity during this audit was the examination of an approved AK Assessment (AKA) for solids waste stream ID-RF-S3114 from Rocky Flats Environmental Technology Site (RFETS) activities. Although this waste stream was not included in this AK recertification audit process, it has a close association with the audited solids waste stream ID-SRP-83000, as one of the two RFETS sludge's undergoing remediation in the Sludge

Repackaging Project (SRP). It provides an example of the application of the requirement in CCP-TP-005, designed to ensure that the AK documentation relating to the management of potentially reactive, corrosive, ignitable, and incompatible TRU waste materials is adequate, current, and accurately described in existing AK Summary Reports ... " An examination of the document was performed, including the appropriate application of the procedure, supporting references and conclusions reached.

The audit team also reviewed the approved Chemical Compatibility Evaluation Memo (CCEM) for waste stream ID-RF-83114. The CCCEM was developed in conjunction with the requirements of CCP-TP-005 and the 1980 Environmental Protection Agency (EPA) Method EPA-600/2-80-076, *A Method for Determining the Compatibility of Hazardous Wastes*. This method considers possible chemicals combinations that could occur in a waste stream and the potential adverse reactions that could result in the generation of fire, heat, explosion, or fumes. The team assessed CCP's application of this method to the ID-RF-83114 sludge waste stream.

The IWMDL, AKA, and CCCEM are identified in CCP-TP-005 and included in the WIPP Documented Safety Analysis (DSA), Revision 5b, Chapter 18, where they form the basis for an "enhanced" AK process.

The audit team identified one WAP-related CDA. No other WAP-related concerns or observations were identified during the audit.

- CDA1: An IWMDL has been developed for RH waste streams ID-HFEF-S5000-RP and ID-HFEF-83000-RP in accordance with CCP-TP-005. Sixteen generator site plans, procedures, or reports are cited on the lists and captured in the AK record with a unique AK Source Document number. However, the documentation of a CCP walk-down of these documents with the site Subject Matter Expert /Point of Contact (SME/POC) has not been documented on the AK Source Document Summary, as required by section 4.2.14 and 4.2.15 for ten of the sixteen documents.
- Documentation of the verification step (i.e., a verbal walk-down of the generator site document contents) with the site SME/POC, including the date of the verification and the name of the site SME/POC contacted, has been added to each of the ten AK Source Document Summaries, Attachment 3, Acceptable Knowledge Source Document Summary, as required. The audit team reviewed the IWMDL and the ten Attachment 3 documents and determined that the revised list and attachments provide a sufficiently detailed and reviewed AK summary in accordance with the procedure. The deficiency was therefore determined to have been corrected during the audit.

The Interim Audit Report A-16-18, issued by CBFO on July 8, 2016, indicated that the audit team identified three non-WAP-related concerns consisting of one CAR related to neutron measurements, one observation related to nonconformance forms, and one recommendation offered for management consideration related to the updating of an AK Summary Report.



Messrs. Shrader and Breidenbach  
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NMED concludes that Final Audit Report A-16-18 demonstrates that INL/CCP has implemented the applicable characterization requirements of the WAP during the applicable timeframe.

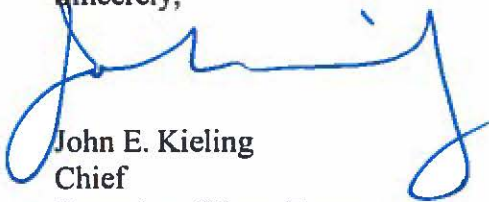
Based on NMEDs reviews and conclusions mentioned above, NMED hereby approves INL/CCP Final Audit Report A-14-18, INL/CCP Final Audit Report A-15-18, and INL/CCP Final Audit Report A-16-18. However, NMED will check on the status of WAP-related concerns during the next INL/CCP Audit.

NMED also amends the previous final audit report approval for Final Audit Report A-13-18 issued by NMED on January 6, 2014, to include only those waste forms and processes evaluated by these recertification audits.

The audit report approvals for Final Audit Report A-14-18, Final Audit Report A-15-18, and Final Audit Report A-16-18 are approvals of the broad programmatic implementation of waste characterization requirements at INL/CCP, and do not constitute approval of individual waste characterization procedures, or inappropriate applications of those procedures. The approvals do not relieve the Permittees of their obligation to comply with the requirements of the permit or other applicable laws and regulations.

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: R. Maestas, NMED HWB  
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File: WIPP '17