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Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
MAY 08 2017



Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Transmittal of the Hazardous Waste Facility Permit Attachment C6 Audit Plan and Notification of Assigned Auditors for CBFO Recertification Audit A-17-23, INL/CCP Remote-Handled Transuranic Waste Characterization Activities

Dear Mr. Kieling:

This letter transmits the audit plan for Carlsbad Field Office (CBFO) Recertification Audit A-17-23 of the Idaho National Laboratory/Central Characterization Program (INL/CCP). The audit will be conducted as required by the Waste Isolation Pilot Plant Hazardous Waste Facility Permit at the INL/CCP facilities near Idaho Falls, ID and at the Skeen-Whitlock Building in Carlsbad, NM June 13 – 15, 2017. The audit plan identifies the audit team members as required by the Permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Should you have any questions concerning this notification, please contact Mr. Dennis S. Miehs, Senior Quality Assurance Specialist, at (575) 234-7491.

Sincerely,

Todd Shrader, Manager
Carlsbad Field Office

Enclosure

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Mr. John E. Kieling

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MAY 08 2017

cc: w/enclosure

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CARLSBAD FIELD OFFICE AUDIT PLAN

Audit Number: A-17-23

Organization to be Audited: Idaho National Laboratory (INL) Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP)

Organizations to be Notified: U.S. Department of Energy – Idaho Falls (DOE-ID)
New Mexico Environment Department (NMED)
U.S. Environmental Protection Agency (EPA)
Nuclear Waste Partnership LLC (NWP)
Defense Nuclear Facilities Safety Board

Date and Location: June 13 – 15, 2017
Idaho Falls, ID, and Carlsbad, NM

Audit Team:

Dennis Miehls	Carlsbad Field Office (CBFO) Management Representative
Jim Schuetz	Audit Team Leader (ATL), CBFO Technical Assistance Contractor (CTAC)
Jim Vernon	Audit Team Leader-In-Training (AIT), CTAC
Matt Lerach	Auditor, CTAC (Program Status / Interface and Container Management)
Bobby Hunt*	Auditor, CTAC (C6 QA – Training and Records)
Katie Chester*	Auditor, CTAC (C6 QA – WWIS/WDS, NCRs, and MAR)
Ricardo Chavez	Auditor, CTAC (AK)
Prissy Yanez*	Auditor (C6 QA – Training and Records)
Greg Knox	Auditor, CTAC (RTR)
Roger Vawter	Auditor, CTAC (DTC)
Brian Tousley	Auditor, CTAC (Program Status / Interface, Container Management, and VE)
Dick Blauvelt	Technical Specialist, CTAC (AK)
Randy Fitzgerald	Technical Specialist, CTAC (AK)
Paul Gomez	Technical Specialist, CTAC (PL V&V)
Rhett Bradford	Technical Specialist, CTAC (RTR)
Porf Martinez	Technical Specialist, CTAC (VE)
Jim Oliver	Technical Specialist, CTAC (DTC)

* Indicates team members working at the Skeen-Whitlock Building in Carlsbad, NM.

Audit Scope:

The audit team will evaluate the continued adequacy, implementation, and effectiveness of the technical and quality assurance (QA) activities performed by NWP/CCP at INL for characterization of remote-handled (RH) Summary Category Groups (SCGs) S3000 solids and S5000 debris wastes. This will also include verification that a technical review of the generator site's processes has been performed and any issues identified during the technical review have been resolved per DOE/WIPP-16-3564, *Generator Site Technical Review Procedure*. The Contact-Handled (CH) S3000 (homogeneous solids), S4000 (soils) and S5000

(debris) SCGs will also be audited regarding completion of enhanced Acceptable Knowledge (AK) activities related to containers that have been previously certified.

The audit will be performed at the INL site near Idaho Falls, ID and at the Skeen-Whitlock Building in Carlsbad, NM. A list of the equipment and processes to be evaluated is attached to this plan (Attachment 1).

Governing Documents/Requirements:

Evaluation of the overall program adequacy, implementation, and effectiveness of INL/CCP documents will be based on the current revisions of the following documents:

- *Quality Assurance Program Document, DOE/CBFO-94-1012*
- *Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF*
- *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant, DOE/WIPP-02-3122*
- *Remote-Handled TRU Waste Characterization Program Implementation Plan, DOE/WIPP-02-3214*
- *DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis (Chapter 18)*

Programmatic and technical checklists will be developed from the current revisions of the following documents:

- *CCP Transuranic Waste Characterization Quality Assurance Project Plan, CCP-PO-001*
- *CCP Transuranic Waste Certification Plan, CCP-PO-002*
- *CCP/INL RH TRU Waste Interface Document, CCP-PO-501*
- *CCP Interface Document Preparation, CCP-PO-043*
- *Related CCP QA and technical implementing procedures*

Activities to be Audited:

General

- Results of Previous Audits
- Changes in Programs or Operations
- New Programs or Activities Being Implemented
- Changes in Key Personnel

Quality Assurance Activities in Carlsbad, NM

The following quality assurance (QA) elements will be evaluated for compliance with the Permit, utilizing checklists C6-1 and C6-2.

- Quality Improvement/Nonconformances
- Personnel Qualification and Training
- Records
- Measuring and Test Equipment (M&TE)

- Software Version Installation

Technical Elements in Idaho Falls, ID

The following technical elements will be evaluated for compliance with the Permit, utilizing checklists C6-1 through C6-4 and/or procedural checklists, as applicable:

- Project-level Data Validation and Verification (PL/V&V)
- Enhanced Acceptable Knowledge (AK), including waste certification (i.e., Waste Stream Profile Forms)
 - Also including, but not limited to, Enhanced Chemical Compatibility Evaluation Memorandum (CCEM), Basis of Knowledge (BOK), AK Assessments, AK Briefings, Interface Waste Management Documents List (IMWDL)
- Real-time Radiography (RTR)
- Visual Examination (VE)
- Dose-to-Curie (DTC)
- Container Management
- Transportation
- WIPP Waste Information System/Waste Data System (WWIS/WDS)
 - Including, but not limited to, Statistical Approach to Material at Risk (MAR)

For additional details, see the attached Processes and Equipment to be Reviewed During Audit A-17-23 of INL/CCP.

Schedule of Audit Activities:

A pre-audit conference will be held Tuesday, June 13, 2017, at 8:30 a.m.

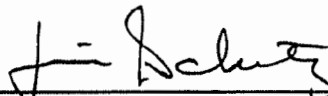
Audit team caucus meetings will be held Tuesday and Wednesday, June 13 and 14, 2017, at 3:00 p.m.

A final audit team caucus meeting will be held Thursday, June 15, 2016, at 1:30 p.m.


Daily management briefings will be held, if needed, Wednesday and Thursday, June 14 and 15, 2017, at 8:30 a.m.

A post-audit conference is scheduled for Thursday, June 15, 2017, at 3:00 p.m.

All meetings will take place in room(s) TBD at the designated INTEC / INL and Carlsbad locations, as noted on the Daily Audit Schedule.

Prepared by: 
Jim Schuetz, CTAC
Audit Team Leader

Date: 5-3-17

Concurrence: 
Michael R. Brown, Director
CBFO Office of Quality Assurance

Date: 5/04/2017

Processes and Equipment to be Reviewed During Audit A-17-23 of the INL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
<u>NEW PROCESSES OR EQUIPMENT</u>				
--	None	--	--	--
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
14601C2	Radiological characterization analysis using ORIGEN2.2 As identified in CCP-RC-INL-601	Debris (S5000)	N/A	YES
14631C3	Radiological characterization neutron dose-to-curie (DTC) method by confirmation As identified in CCP-RC-INL-631	Debris (S5000)	N/A	YES
14VE1*	Visual Examination (VE) Procedure – CCP-TP-006 Description – Visual Examination Technique (VET)	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
14RHVE1	Visual Examination Procedure – CCP-TP-500 Description - The VE of audio/video media process used for a total of 70 retrievably stored remote-handled (RH) debris waste drums	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
14RRH1	Nondestructive Examination Procedure – CCP-TP-508 Equipment – RTR-RTR-0659 Description – VJ Technologies, Real-time Radiography Characterization (RTR-RTR-0659) System	Solids (S3000) Debris (S5000)	YES	YES
N/A	Acceptable Knowledge	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
N/A	Enhanced Acceptable Knowledge	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Certified Program Enhanced Chemical Compatibility Evaluation	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD

Processes and Equipment to be Reviewed During Audit A-17-23 of the INL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
N/A	Basis of Knowledge Evaluating Oxidizing Chemicals in TRU Waste	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Certified Program Acceptable Knowledge Assessments	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Data Validation and Verification	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
N/A	WIPP Waste Information System (WWIS)/Waste Data System (WDS)	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
14SGRS1*	Nondestructive Assay Procedure – CCP-TP-115 Description – Stored Waste Examination Pilot Plant (SWEPP) Gamma Ray Spectrometer (SGRS)	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
14WAGS1*	Nondestructive Assay Procedure – CCP-TP-019 Description – Waste Assay Gamma Spectrometer	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
14DTC1	Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH waste stream Dose-rate fractional contribution of Cs-137 and Co-60 using OSPREY La ₃ Br(Ce) gamma detector Procedure CCP-TP-504	Solids (S3000) Debris (S5000)	N/A	YES

Processes and Equipment to be Reviewed During Audit A-17-23 of the INL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
N/A	Load Management	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
N/A	Quality Assurance Program	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
N/A	TRUCON code evaluation to ensure compliance with the enhanced chemical compatibility evaluation	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Implementation of additional checks in the WDS	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Obtain written approval from CBFO prior to release of waste streams for shipment	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD
N/A	Verification that each container requested is part of a CBFO-approved waste stream and authorizes shipment in WDS.	Solids (S3000) Soils (S4000) Debris (S5000)	TBD	TBD

* Indicates equipment currently deactivated that was used to generate BDRs prior to October 1, 2015. These line items cover CH waste characterization activities that are no longer being implemented by CCP. CH containers that were previously characterized using these processes are currently the subject of enhanced AK evaluations to revise AK as necessary and to prepare to request release of containers for shipping.