



United States Government

Department of Energy

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**memorandum**MAY 13 2016  
Carlsbad Field Office  
Carlsbad, New Mexico 88221

**DATE:** MAY 13 2016  
**REPLY TO  
ATTN OF:** CBFO:OQA:DSM:BA:16-1373:UFC 2300.00  
**SUBJECT:** Recertification Audit A-16-18, INL/CCP Transuranic Waste Characterization Activities  
**TO:** Mr. Benjamine B. Roberts, DOE-ID

Please be advised that a team of auditors and technical specialists from the Carlsbad Field Office (CBFO) will conduct Audit A-16-18 at the Idaho National Laboratory/Central Characterization Program (INL/CCP) facilities near Idaho Falls, ID, and at the Skeen-Whitlock Building in Carlsbad, NM, June 14 – 16, 2016. The audit will be conducted in accordance with the attached audit plan.

The purpose of the audit is to determine whether INL/CCP transuranic waste characterization activities should be recertified by CBFO for waste destined for disposal at the Waste Isolation Pilot Plant. Representatives from CBFO, the New Mexico Environment Department, and U.S. Department of Energy Headquarters may be present to observe the audit process. Representatives from the U.S. Environmental Protection Agency may also be present to conduct an independent inspection.

Your representatives are requested to coordinate with the audit team to provide access to INL/CCP facilities and the necessary documentation and records for the audit team to conduct the audit. Please ensure availability of appropriate space to conduct the pre-audit and post-audit conferences and also work spaces for the audit team as well as for observers and inspectors, if present.

If you have any questions or comments concerning this audit, please contact me at (575) 234-7491.

Dennis S. Miehl  
Senior Quality Assurance Specialist

Attachment



Mr. Benjamine B. Roberts

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MAY 13 2016

cc: w/attachment

S. Ross, EM-43	*ED
M. Brown, CBFO	ED
J.R. Stroble, CBFO	ED
M. Navarrete, CBFO	ED
G. Birge, CBFO	ED
N. Castaneda, CBFO	ED
H. Cruickshank, CBFO	ED
J. Zimmerman, DOE-ID	ED
M. Willcox, DOE-ID	ED
P. Breidenbach, NWP	ED
J. Blankenhorn, NWP	ED
J. Britain, NWP	ED
F. Sharif, NWP	ED
D.E. Gulbransen, NWP	ED
R. Reeves, NWP	ED
A.J. Fisher, NWP	ED
I. Joo, NWP	ED
J. Carter, NWP	ED
V. Cannon, NWP	ED
B. Allen, NWP	ED
S. Punchios, NWP	ED
A. Boyea, NWP	ED
T. Peake, EPA	ED
E. Feltcorn, EPA	ED
R. Joglekar, EPA	ED
J. Kieling, NMED	ED
R. Maestas, NMED	ED
C. Smith, NMED	ED
V. Daub, CTAC	ED
P. Martinez, CTAC	ED
C. Castillo, CTAC	ED
B. Boyko, CTAC	ED
J. Schuetz, CTAC	ED
D. Harvill, CTAC	ED
G. White, CTAC	ED
Site Documents	ED

CBFO QA File

CBFO M&RC

\*ED denotes electronic distribution

## CARLSBAD FIELD OFFICE AUDIT PLAN

**Audit Number:** A-16-18

**Organization to be Audited:** Idaho National Laboratory (INL)  
Central Characterization Program (CCP)

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

**Date and Location:** June 16 – 18, 2016  
Idaho Falls, ID, and Carlsbad, NM

**Audit Team:**

Dennis Miehls	Carlsbad Field Office (CBFO) Management Representative
Jim Schuetz	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Porf Martinez	Auditor, CTAC (Program Status)
Jack Walsh*	Auditor, CTAC (C6 QA)
Katie Martin*	Auditor, CTAC (WWIS/WDS)
Charlie Riggs	Auditor, CTAC (AK)
Roger Vawter	Auditor, CTAC (RTR)
Rick Castillo	Auditor, CTAC (VE)
Bob Boyko	Auditor, CTAC (NDA, DTC)
Dick Blauvelt	Technical Specialist, CTAC (AK)
Judith Stewart	Technical Specialist, CTAC (AK)
Paul Gomez	Technical Specialist, CTAC (PL V&V)
Greg Knox	Auditor/Technical Specialist, CTAC (RTR)
Rhett Bradford	Technical Specialist, CTAC (VE)
Jim Oliver	Technical Specialist, CTAC (NDA, DTC)
B.J. Verret	Auditor/Technical Specialist, CTAC (GGT, FGA, Container Management, Transportation)

\*Personnel auditing in Carlsbad, NM

### Audit Scope:

The audit team will evaluate the continued adequacy, implementation, and effectiveness of INL/CCP transuranic waste activities as they relate to the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit for characterization and certification of contact-handled Summary Category Groups (SCGs) S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris waste for activities performed since the previous recertification audit to September 30, 2015. The audit will include evaluation for the continued adequacy, implementation, and effectiveness of INL/CCP transuranic waste activities for remote-handled SCGs S3000 homogeneous solids and S5000 debris waste. The specific items to be audited are listed under Activities to be Audited.

**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.

- Personnel Qualification and Training
- Records
- Quality Improvement/Nonconformances
- WIPP Waste Information System/Waste Data System (WWIS/WDS)

**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.

- Acceptable Knowledge (AK)
- Waste Certification (e.g., Waste Stream Profile Forms)
- Project-level Data Validation and Verification (PL V&V)
- Real-time Radiography (RTR)
- Visual Examination (VE)
- Nondestructive Assay (NDA)
- Dose-to-Curie (DTC)
- Flammable Gas Analysis (FGA)
- Gas Generation Testing (GGT)
- Container Management
- Transportation

For additional details, see the attached Processes and Equipment to be Reviewed During Audit A-16-18 of INL/CCP.

**Governing Documents/Requirements:**

Adequacy of INL/CCP documents will be based on the current revisions of the following documents:

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

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

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-024, *CCP/INL Interface Document*
- CCP-PO-501, *CCP/INL RH TRU Waste Interface Document*
- Related INL/CCP and NWP QA and technical implementing procedures

**Schedule of Audit Activities:**

A pre-audit conference will be held Tuesday, June 14, 2016, at 8:30 a.m.

Audit team caucus meetings will be held Tuesday and Wednesday, June 14 and 15, 2016, at 4:00 p.m.

A final audit team caucus meeting will be held Thursday, June 16, 2016, at 2:00 p.m.

Daily management briefings will be held Wednesday and Thursday, June 15 and 16, 2016, at 8:30 a.m.

A post-audit conference is scheduled for Thursday, June 16, 2016, at 3:30 p.m.

All meetings will take place at the designated INL and Carlsbad locations.

Prepared by: James R. Schuetz  
James R. Schuetz, CTAC  
Audit Team Leader

Date: 5/11/16

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

Date: 5/12/2016

## Processes and Equipment to be Reviewed During Audit A-16-18 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
<b><u>NEW PROCESSES OR EQUIPMENT</u></b>				
--	None	--	--	--
<b><u>PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT</u></b>				
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	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

## Processes and Equipment to be Reviewed During Audit A-16-18 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
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 <sub>3</sub> Br(Ce) gamma detector  Procedure CCP-TP-504	Solids (S3000) Debris (S5000)	N/A	YES
14GG1	Gas Generation Testing Procedure – CCP-TP-083 Equipment – MGSS Unit/Cart 1 (GC-14B) Description – Gas Generation Testing 55-gallon drums	Waste Type IV	N/A	N/A
14GG2	Gas Generation Testing Procedure – CCP-TP-083 Equipment – MGSS Unit/Cart 2 (GC-17A) Description – Gas Generation Testing 55-gallon drums	Waste Type IV	N/A	N/A
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

\* Indicates equipment currently deactivated that was used to generate BDRs prior to October 1, 2015. The program and procedures associated with the equipment and the BDRs will be evaluated as part of the scope of audit A-16-18.