

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

**DATE:** June 21, 2022

**REPLY TO  
ATTN OF:** CBFO:QAD:MS:JM:22-0827:UFC 2300.00

**SUBJECT:** Audit Plan for CBFO Audit A-22-16, of ANL/CCP Transuranic Waste: Initial Certification of Contact-Handled Waste and Recertification of Remote-Handled Waste

**TO:** Noreen Brachman, DOE-CH

Please be advised that an audit team from the U. S. Department of Energy Carlsbad Field Office (DOE/CBFO) will conduct Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit Attachment C6 Audit A-22-16 for initial certification of contact-handled (CH) and recertification remote-handled (RH) transuranic waste characterization activities. The audit is scheduled for July 26 – 28, 2022, and will be conducted in accordance with the attached audit plan, unless additional changes or restrictions are imposed due to the COVID-19 crisis.

The Argonne National Laboratory Central Characterization Program (ANL/CCP) characterization activities for CH and RH Summary Category Group S5000 debris waste will be evaluated during the audit. In addition, the audit team will verify compliance with the WIPP Waste Acceptance Criteria. Representatives from the DOE/CBFO and the New Mexico Environment Department may be present to observe the audit.

Your representatives are requested to coordinate with the audit team and provide the team access to ANL waste characterization facilities; provide a meeting room (with a projector and speakerphone) to accommodate approximately 30 people for the entrance and exit meetings at both locations; provide working rooms for the team at both locations; assign cognizant personnel to support the audit; and facilitate access to the appropriate documentation and records at both locations.

If you have any questions concerning the audit, please contact me at (814) 421-3322.

Joe Lopez  
for Michael  
Stapleton

Digitally signed by  
Joe Lopez for  
Michael Stapleton  
Date: 2022.06.21  
13:35:10 -06'00'

Micheal Stapleton,  
Senior Quality Assurance Specialist  
Quality Assurance Division  
Carlsbad Field Office

Attachment

220621

cc: w/attachment

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R. Toro, EM-3.113	ED	K. Gentry, NWP/CCP	ED
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K. Princen, CBFO	ED	D. Ivey, NWP/QA	ED
E. Garza, CBFO	ED	V. Ballew, NWP/QA	ED
D. C. Gadbury, CBFO	ED	S. Saiz, NWP/QA	ED
D. Jolley, CBFO	ED	A. Boyea, NWP/QA	ED
J. Lopez, CBFO	ED	J. Ellis, EPA	ED
J. Montemayor, CBFO	ED	T. Peake, EPA	ED
J. Biesecker, CBFO	ED	E. Feltcorn, EPA	ED
H. Cruickshank, CBFO	ED	R. Shean, NMED	ED
A. Walker, CBFO	ED	R. Maestas, NMD	ED
M. Toothman, CBFO	ED	D. Biswell, NMED	ED
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M. Luckey, CBFO	ED	S. Kopp, CTAC	ED
W. Iqbal, CBFO	ED	W. Ledford, CTAC	ED
D. Smith, CBFO	ED	S. Gomez, CTAC	ED
K. Joshi, DOE-CH	ED	R. Castillo, CTAC	ED
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S. Strong, NWP	ED	D. Harvill, CTAC	ED
K. Stone, NWP/CCP	ED	G. White, CTAC	ED
R. Lee, NWP/CCP	ED	Site Documents	ED
R. Reeves, NWP/CCP	ED	S. Sifuentes, SNL	ED
D. Wade, NWP/CCP	ED	CBFO M&RC	ED
C. Simmons, NWP/CCP	ED	CBFO QA File	
J. Harvill, NWP/CCP	ED		
B. Pace, NWP/CCP	ED		

\*ED denotes electronic distribution

**CARLSBAD FIELD OFFICE  
AUDIT PLAN**

**Audit Number:** A-22-16

**Organization to be Audited:** Argonne National Laboratory (ANL), Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP)

**Organizations to be Notified:** ANL  
NWP  
New Mexico Environment Department (NMED)  
U.S. Environmental Protection Agency (EPA)

**Date and Location:** July 26 – 28, 2022  
Lemont, IL, Carlsbad, NM, and via remote capabilities

**Audit Team:** **Micheal Stapleton\*\*** Carlsbad Field Office (CBFO) Quality Assurance (QA) Lead (QAL)  
**Shelly Gomez\*\*** Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)

Audited Process:	Auditors:	Technical Specialists:
C6 General QA	Bob Prentiss: (WWIS/WDS/NCRs) Paul Gilbert: (Training/Records)	N/A
Acceptable Knowledge	Maria Escarcega	Dick Blauvelt Randy Fitzgerald
QA Program, Organization, Interface, & Program Status	<b>Wayne Ledford**</b>	N/A
Visual Examination & Container Mgmt.	<b>Eric Lyles**</b>	<b>Dustin Stegman**</b>
Nondestructive Assay/DTC	<b>Tim Boswell**</b>	<b>Jim Oliver**</b>
Project-Level Validation	N/A	<b>Dale Dover**</b>

**Bold\*\*** Indicates team members traveling to perform the audit. These technical and QA objective evaluations are to be performed on-site as required by the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Waste Analysis Plan, Attachment C6, *Audit and Surveillance Program*.

**Audit Scope:**

The audit team will evaluate the adequacy, implementation, and effectiveness of the technical and QA activities performed by NWP CCP at ANL for characterization of contact-handled (CH) and remote-handled (RH) transuranic (TRU) Summary Category Group (SCG) S5000 debris waste. This will be an initial evaluation for CH waste and associated activities at ANL/CCP.

The CH debris waste streams to be evaluated is CCP-AK-ANLE-002 (AECHDM.01, Heterogeneous debris) and RH CCP-AK-ANLE-500 (AERHDM, Heterogeneous

debris).

The ANL/CCP has an RH inventory of previously certified containers for which they are responsible to maintain. However, there are no new RH waste characterization processes since the last audit. ANL is implementing a new CH waste characterization program. Visual Examination (VE), Non-Destructive Assay (NDA), and Dose-to-Curie (DTC) have been included in the scope of this audit.

Some audit activities will be conducted at the ANL Site in Lemont, IL, with team members also working remotely via teleconference, as described in the daily schedule.

Transportation activities will not be included in the scope of this audit; however, CCP-TP-033, *CCP Shipping of Contact-Handled (CH) TRU Waste*, was added to the audit scope for the evaluation of continued shipment of shielded container assemblies.

A list of the equipment and processes to be evaluated is attached to this plan (Attachment 1).

The scope of this audit will include Acceptable Knowledge (AK) with the Chemical Compatibility Evaluation Memorandum (CCEM), and Basis of Knowledge (BoK) evaluation containers not subject to BoK criteria for Waste Stream AERHDM, and ANL/CCP Programs Heterogeneous debris waste. This RH SCG S5000 debris waste stream has been approved by CBFO.

### **Governing Documents/Requirements:**

Evaluation of the overall program adequacy, implementation, and effectiveness of ANL/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
- *Waste Isolation Pilot Plant Documented Safety Analysis*, DOE/WIPP-07-3372 (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/ANL Interface Document*, CCP-PO-500
- Related NWP/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

**C6-1 through C6-4 and general QA program elements as applicable**

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

**Technical Activities**

- Project-level Data Validation and Verification (PL/V&V)
- Acceptable Knowledge (AK)
- Visual Examination (VE)
- Dose-to-Curie (DTC)
- Nondestructive Assay (NDA) \*initial evaluation
- Container Management
- WIPP Waste Information System/Waste Data System (WWIS/WDS)

**Schedule of Audit Activities:**

A pre-audit conference is scheduled for Tuesday, July 26, 2022, at 9:00 a.m. CDT.

If needed, the audit team leader will conduct a management briefing with appropriate ANL and NWP/CCP management at 8:30 a.m. CDT on Wednesday and Thursday, July 27 and 28, 2022.

A post-audit conference is scheduled for Thursday, July 28, 2022, at 10:00 a.m. CDT.

All meetings will take place at designated locations at the ANL site in Lemont, IL, Skeen-Whitlock Building in Carlsbad, NM, and/or via teleconference. Please refer to the daily schedule for locations.

**Prepared by:** Shelly Gomez Digitally signed by Shelly Gomez  
Date: 2022.06.15 11:03:17 -06'00' **Date:** 6/15/2022  
Shelly Gomez  
CTAC Audit Team Leader

**Concurrence:** DARREN JOLLEY Digitally signed by DARREN JOLLEY  
Date: 2022.06.16 13:48:06 -06'00' **Date:** \_\_\_\_\_  
for  
Micheal Stapleton, CBFO  
Quality Assurance Lead

**Approval:** DARREN JOLLEY Digitally signed by DARREN JOLLEY  
Date: 2022.06.16 13:48:54 -06'00' **Date:** \_\_\_\_\_  
Darren Jolley, Director  
CBFO Quality Assurance Division

<b>Table 1</b> <b>ANL-CCP CH and RH WIPP Certified Program Waste</b> <b>Characterization Processes To Be Audited</b> <b>CH S5000 AECHDM.01 And RH S5000 AERHDM Debris</b>
Acceptable Knowledge (AK Summary Reports) including Enhanced AK Documents: AK Assessment, BoK, and CCEs
Data Generation and Project Level Validation & Verification
Visual Examination WIPP # 8RHVE1 WIPP # 8CHVE2
Dose-to-Curie (Radiological Characterization) WIPP # 8DTC1 Non-Destructive Assay WIPP # 8MILCC5
WIPP Waste Information System/Waste Data System
Quality Assurance
<b>Permit Requirement:</b> <ul style="list-style-type: none"> <li>- Per the <i>WIPP Hazardous Waste Facility Permit Waste Analysis Plan</i>; Section C6-3, Audit Position Functions, "Audits will be conducted at least annually for each site involved in the waste characterization program".</li> <li>- NTP will request a follow-up surveillance for characterization/transportation activities that are not requested under this scope.</li> </ul>
<b>EPA Approvals:</b> <ul style="list-style-type: none"> <li>- Tier 1 approval adding 100 drums of AGHCF debris waste to waste stream AERHDM dated October 2008, A-98-49; II-A4-136.</li> <li>- Tier 1 approval adding K-Wing debris to waste stream AERHDM dated September 2010, A-98-49; II-A4-132.</li> <li>- Tier 1 approval adding 120 containers of AGHCF debris waste to waste stream AERHDM dated September 2010, A-98-49; II-A4-134.</li> <li>- Tier 1 approval adding AGHCF fuel pin FEW in waste stream AERHDM dated November 2010, A-98-49; II-A4-140.</li> <li>- Tier 1 approval adding K-Wing FEW to waste stream AERHDM dated February 2012, A-98-49; II-A4-158.</li> <li>- Tier 1 approval adding K-Wing Solidified Liquid Waste to waste stream AERHDM dated June 2012, A-98-49; II-A4-162.</li> <li>- Tier 1 approval adding AGHCF RERTR FEW and second batch of Fuel Pin FEW dated October 2012, A-98-49; II-A4-167.</li> <li>- EPA letter dated September 2013, found the DOE met the goal of shipping due to measurement uncertainty by combining multiple measurements and shielding calculations.</li> <li>- Tier 1 approval adding 5 containers to the AERHDM waste stream dated March 2014, A-98-49; II-A4-181.</li> </ul>