

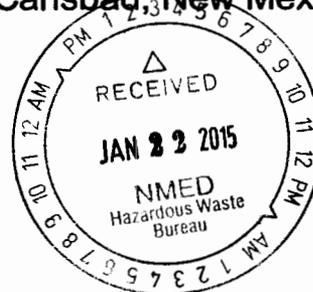


United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221



DATE: JAN 22 2015

REPLY TO  
ATTN OF: CBFO:QAD:MPN:RMS:15-0605:UFC 2300.00

SUBJECT: Recertification Audit A-15-09 of the ORNL/CCP

TO: Laura Wilkerson, DOE-OR

Please be advised that an audit team from the Carlsbad Field Office (CBFO) will conduct Waste Isolation Pilot Plant Hazardous Waste Facility Permit Attachment C6 Audit A-15-09 of the Oak Ridge National Laboratory (ORNL) site and services of the Nuclear Waste Partnership LLC Central Characterization Program (CCP) for the recertification of contact-handled (CH) and remote-handled (RH) transuranic waste characterization activities. The audit, which is scheduled for February 24-26, 2015 will be conducted in accordance with the attached audit plan. The ORNL/CCP characterization activities for CH Summary Category Groups (SCGS) S3000 solids, S4000 soils/gravel, S5000 debris wastes and RH SCG S5000 debris wastes will be evaluated during the audit. Representatives from the CBFO and the New Mexico Environment Department may be present to observe the audit.

Your representatives are requested to coordinate with the audit team to provide access to ORNL/CCP facilities and the necessary documentation and records for the audit team to conduct the audit. Please ensure availability of appropriate space to conduct meetings for auditors and observers. Also, please arrange to have cognizant personnel available to support the audit.

If you have any questions or comments concerning the audit, I can be reached at (575) 234-7483.

Martin P. Navarrete  
Senior Quality Assurance Specialist

Attachment

- cc: w/attachment
- M. Brown, CBFO \*ED
- J.R. Stroble, CBFO ED
- D. Miehl, CBFO ED
- N. Castaneda, CBFO ED
- S. Cange, DOE-OR ED
- R. McQuinn, NWP ED
- J. Blankenhorn, NWP ED
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150120



Laura Wilkerson

-2-

JAN 22 2015

V. Cannon, NWP	ED
A.J. Fischer, NWP	ED
M. Walker, NWP	ED
W. Ledford, NWP	ED
J. Carter, NWP	ED
T. Peake, EPA	ED
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E. Feltcorn, EPA	ED
R. Joglekar, EPA	ED
S. Ghose, EPA	ED
R. Lee, EPA	ED
J. Keiling, NMED	ED
R. Maestas, NMED	ED
S. Holmes, NMED	ED
C. Smith, NMED	ED
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P. Martinez, CTAC	ED
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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-15-09

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

**Organizations to be Notified:** ORNL  
NWP  
New Mexico Environment Department (NMED)  
Defense Nuclear Facilities Safety Board  
U.S. Environmental Protection Agency

**Date and Location:** February 24 – 26, 2015  
Oak Ridge, TN, and Carlsbad, NM

**Audit Team:**

Martin Navarrete	Management Representative, Carlsbad Field Office (CBFO), Quality Assurance Division
Rick Castillo	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Berry Pace	Auditor, CTAC
Charlie Riggs (AK)*	Auditor, CTAC
Prissy Martinez (NDA)	Auditor, CTAC
Katie Martin (RTR)	Auditor, CTAC
Tamara Ackman (VE)	Auditor, CTAC
Jim Schuetz (C6 QA)*	Auditor, CTAC
Dick Blauvelt (AK)*	Technical Specialist, CTAC
Judith Stewart (AK)*	Technical Specialist, CTAC
Porf Martinez (RTR)	Technical Specialist, CTAC
Rhett Bradford (VE)	Technical Specialist, CTAC
Paul Gomez (PLV&V)*	Technical Specialist, CTAC
Greg Knox (RTR)	Technical Specialist, CTAC
James Oliver (NDA/DTC)	Technical Specialist, CTAC
B.J. Verret (FG/CM)	Technical Specialist, CTAC

\* 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 ORNL for characterization of contact-handled (CH) Summary Category Groups (SCGs) S3000 solids, S4000 soils/gravel, S5000 debris wastes and remote-handled (RH) SCG S5000 debris wastes.

The audit will be performed at the ORNL site in Oak Ridge, TN, and in 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 and effectiveness of ORNL/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*

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*
- 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**

The following general areas from section C6-1 of the Hazardous Waste Facility Permit:

- Nonconformances
- Personnel Qualification and Training
- Records

### **Technical Activities**

- Project-level Data Validation and Verification (PLV&V)
- Acceptable Knowledge (AK), including waste certification (i.e., Waste Stream Profile Forms)

- Real-time Radiography (RTR)
- Visual Examination (VE)
- Nondestructive Assay (NDA)
- Dose-to-Curie (DTC)
- Flammable Gas Analysis (FGA)
- WIPP Waste Information System/Waste Data System (WWIS/WDS)

**Schedule of Audit Activities:**

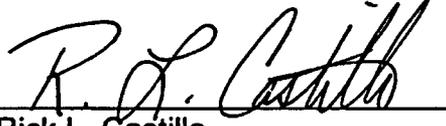
A pre-audit conference is scheduled for Tuesday, February 24, 2015, at 8:30 a.m.

Audit team caucuses will be held at 4:00 p.m., Tuesday and Wednesday, February 24 and 25, 2015, and at 1:00 p.m. on Thursday, February 26, 2015.

If needed, the audit team leader will conduct a management briefing with appropriate ORNL and CCP management Wednesday, February 25, and Thursday, February 26, 2015, at 8:30 a.m.

A post-audit conference is scheduled for Thursday, February 26, 2015, at 3:00 p.m.

All meetings will take place at the designated locations at the ORNL in Oak Ridge, TN, and Skeen-Whitlock Building in Carlsbad, NM.

Prepared by:  Date: 1/13/15  
Rick L. Castillo  
CTAC Audit Team Leader

Concurrence:  Date: 1/14/15  
Michael R. Brown, Director  
CBFO Quality Assurance Division

<b>CENTRAL CHARACTERIZATION PROGRAM LIST OF CH AND RH EQUIPMENT AND PROCESSES REQUIRING EVALUATION AND CERTIFICATION AT OAK RIDGE NATIONAL LABORATORY</b>					
<b>WDS Method ID #</b>	<b>Site Equipment # or Title</b>	<b>Description</b>	<b>Components</b>	<b>Software</b>	<b>NDA Calibrated Range, Operating Range and TMU</b>
<b>Nondestructive Assay (NDA)</b>					
16IQ1	IQ3	Canberra Mobile Qualitative and Quantitative Drum Counter with Isotopics (IQ3)  Procedure CCP-TP-046, CCP-TP-047, CCP-TP-048	<ul style="list-style-type: none"> <li>• High Sensitivity Gamma Waste Assay System</li> <li>• 3 HPGe Coaxial Detectors</li> <li>• 3 LEGe Detectors</li> </ul>	NDA-2000 Genie 2000	The calibration of the IQ3 is documented in MCS-IQ3-CALIB-2012, "Calibration Report for the MCS IQ3", MCS-IQ3-TMU-2009. Total Measurement Uncertainty for the MCS IQ3 documents the estimate of total measurement uncertainty.
16MILCC2	MILCC2	Mobile ISOCS Large Container Counter (MILCC)  Approved for 55 gallon drums  Procedures CCP-TP-076, CCP-TP-077, and CCP-TP-048	<ul style="list-style-type: none"> <li>• ISOCS Characterized Broad Energy Gamma Detectors (2)</li> <li>• ISOCS rails and collimator sets (2)</li> <li>• ISOCS carts (2)</li> <li>• Signal cables</li> <li>• Canberra LYNX Digital Signal Processors (2)</li> </ul>	NDA-2000 Genie 2000	<i>Calibration Report for the Mobile ISOCS Large Container Counter (MILCC) at the Transuranic Waste Processing Center in Oak Ridge, TN</i> describes the operating ranges and methods. The acceptance range is LLD to limited by dead time. Acceptable density range for gamma is approximately 0.001-2.50 g/cc.
<b>Dose-to-Curie (DTC)</b>					
16DTC1	Dose-to-Curie	Radiological characterization process  Procedure CCP-TP-504	As identified in CCP-TP-504	As identified in CCP-TP-504	N/A
<b>Nondestructive Examination (NDE)</b>					
16RR1	MCS RTR #6	Real-time Radiography Mobile Characterization System RTR #6  Procedure CCP-TP-053, CCP-TP-165	<ul style="list-style-type: none"> <li>• Shielded x-ray enclosure with a hydraulic drum loading door and manually opened personnel door</li> <li>• Conveyer cart including drum manipulation equipment</li> <li>• X-ray imaging system</li> </ul>	N/A	N/A

**CENTRAL CHARACTERIZATION PROGRAM  
LIST OF CH AND RH EQUIPMENT AND PROCESSES REQUIRING EVALUATION AND CERTIFICATION  
AT OAK RIDGE NATIONAL LABORATORY**

WDS Method ID #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
			including x-ray tube, image intensifier, and video camera • Video/audio recording equipment • Mobile platform		
16RR2	MCS RTR #7	Real-time Radiography Mobile Characterization System RTR #7  Procedure CCP-TP-053, CCP-TP-164	• Shielded x-ray enclosure with a hydraulic drum loading door and manually opened personnel door • Conveyer cart including drum manipulation equipment • X-ray imaging system including x-ray tube, image intensifier, and video camera • Video/audio recording equipment • Mobile platform	N/A	N/A
<b>Visual Examination (VE)</b>					
16RHVE1	Visual Examination	Visual Examination Procedure CCP-TP-500	N/A	N/A	N/A
16VE1	Visual Examination	Visual Examination Procedure CCP-TP-113	N/A	N/A	N/A