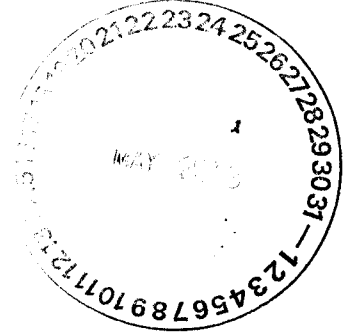




Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

 **ENTERED**

MAY 20 2013



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

Subject: Transmittal of the Audit Report for the Oak Ridge National Laboratory/Central Characterization Program Audit A-13-12

Dear Mr. Kieling:

In accordance with your letter addressed to me dated March 2, 2012, instructing that the Department of Energy must continue to perform annual audits of the Oak Ridge National Laboratory/Central Characterization Program characterization activities, this letter transmits the interim and final audit report for Carlsbad Field Office (CBFO) Audit A-13-12 of the Oak Ridge National Laboratory/Central Characterization Program in accordance with the Waste Isolation Pilot Plant Hazardous Waste Facility Permit. The report contains the results of the audit conducted April 23-25, 2013.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with 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.

Please contact Mr. Martin P. Navarrete, Acting CBFO Quality Assurance Director, at (575) 234-7483, should you have any questions concerning this audit report.

Sincerely,

 *for Jose R. Franco*
Jose R. Franco, Manager
Carlsbad Field Office

Enclosure



Mr. John E. Kieling

-2-

May 20, 2013

cc: w/enclosure

M. Navarrete, CBFO	* ED
D. Miehl, CBFO	ED
J. R. Stroble, CBFO	ED
G. Basabilvazo, CBFO	ED
T. Morgan, CBFO	ED
N. Castaneda, CBFO	ED
W. McMillan, DOE-OR	ED
F. Sharif, NWP	ED
J. Hoff, NWP	ED
W. Ledford, NWP	ED
M. Mullins, NWP	ED
T. Reynolds, NWP/CCP	ED
E. Gulbransen, NWP/CCP	ED
V. Cannon, NWP/CCP	ED
M. Walker, NWP/CCP	ED
J. Carter, NWP/CCP	ED
T. Peake, EPA	ED
L. Bender, EPA	ED
E. Feltcorn, EPA	ED
R. Joglekar, EPA	ED
S. Ghose, EPA	ED
R. Lee, EPA	ED
T. Kliphuis, NMED	ED
S. Holmes, NMED	ED
R. Maestas, NMED	ED
D. Winters, DNFSB	ED
P. Gilbert, LANL-CO	ED
G. Lyshik, LANL-CO	ED
P. Martinez, CTAC	ED
G. White, CTAC	ED
WWIS Database Administrators	ED
R. Chavez, RES	ED
W. Most, RES	ED
D. Streng, RES	ED
L. Pastorello, RES	ED
RCRA Chronology Record	ED
WIPP Operating Record	ED
CBFO M&RC	ED
CBFO QA File	ED

*ED denotes electronic distribution

**U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE**

**INTERIM AND FINAL AUDIT REPORT
OF THE**

**OAK RIDGE NATIONAL LABORATORY
CENTRAL CHARACTERIZATION PROGRAM**

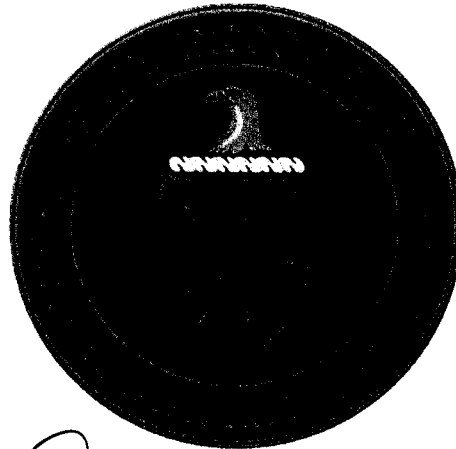
FOR

**WASTE CHARACTERIZATION ACTIVITIES IN ACCORDANCE WITH
THE WASTE ISOLATION PILOT PLANT HAZARDOUS WASTE
FACILITY PERMIT**

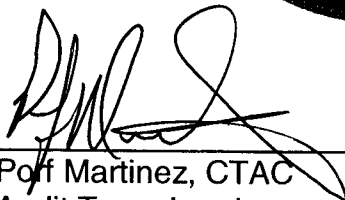
CARLSBAD, NEW MEXICO

AUDIT NUMBER A-13-12

APRIL 23 – 25, 2013



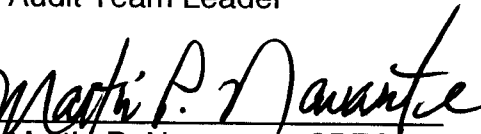
Prepared by:


Pofi Martinez, CTAC
Audit Team Leader

Date:

5/15/13

Approved by:


Martin P. Navarrete, CBFO
Acting Director, Office of Quality Assurance

Date:

5-16-13

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-13-12 was performed to evaluate the adequacy, implementation, and effectiveness of transuranic (TRU) waste characterization activities performed by the Nuclear Waste Partnership, LLC, Central Characterization Program (CCP) for remote-handled (RH) and contact-handled (CH) Summary Category Group (SCG) S5000 debris waste and CH SCG S4000 soils/gravel waste at the Oak Ridge National Laboratory (ORNL). The audit was based on requirements relative to the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) and the *CBFO Quality Assurance Program Document (QAPD)*. The audit was performed in the Skeen-Whitlock Building in Carlsbad, New Mexico, April 23 – 25, 2013.

TRU waste characterization activities by the ORNL/CCP were suspended at the end of July 2011 and have not resumed. As the result of Recertification Audit A-12-08 conducted in 2012, the CBFO suspended authorization for the characterization, certification, and shipment of TRU waste from the ORNL due to funding issues. The current audit results have confirmed that CCP operations at the ORNL have been suspended and no TRU waste characterization activities have been performed at the ORNL since the previous recertification audit.

The HWFP issued to WIPP by the New Mexico Environment Department (NMED) requires that the U.S. Department of Energy (DOE) conduct audits of each site prior to certifying that the site meets the waste characterization requirements for shipment of waste to the WIPP. In accordance with Attachment C6 of the HWFP, audits must be performed at least annually after the initial audit to determine continued compliance with the HWFP Waste Analysis Plan. In a letter dated March 2, 2012, from John E. Kieling, Acting Chief, NMED Hazardous Waste Bureau, to Jose Franco, Manager, Carlsbad Field Office, NMED clarified that DOE must continue to perform annual audits of the ORNL/CCP characterization activities, and further directed: "If DOE cannot determine that the ORNL/CCP meets the requirements in Section 2.3.2.1 of the Permit, the Permittees shall not manage, store, or dispose waste from ORNL at WIPP, as required by section 2.3.2 of the Permit. Further, once waste characterization operations resume at ORNL, DOE must conduct a full site-specific audit at ORNL before waste shipments can be sent from ORNL to WIPP."

Since ORNL/CCP suspended waste characterization activities at the ORNL, the audit team was unable to determine the adequacy of program plans and procedures, the implementation of plans and procedures, and the effectiveness of characterization activities. Therefore, the adequacy, implementation, and effectiveness of all aspects of the ORNL/CCP waste characterization activities continue to be indeterminate.

Once waste characterization activities resume at ORNL, CBFO will conduct a recertification audit as a basis for reinstating authority to perform waste characterization activities and continue shipments from ORNL/CCP.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated documentation to verify adequacy, implementation, and effectiveness of the ORNL/CCP TRU waste characterization activities for RH and CH SCG S5000 debris waste and CH SCG S4000 soils/gravel waste. The following elements were evaluated.

General

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

Quality Assurance

- Personnel Qualification and Training
- Nonconformances
- Records

Technical

- Generation and Project-Level Data Validation and Verification
- Acceptable Knowledge
- Real-time Radiography
- Visual Examination
- Headspace Gas Sampling
- Nondestructive Assay
- Radiological Characterization (dose-to-curie)
- Waste Certification (e.g., Waste Stream Profile Forms)
- WIPP Waste Information System/Waste Data System

The evaluation of the adequacy of ORNL/CCP documents was based on current revisions of the following documents:

- Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF
- *CBFO Quality Assurance Program Document, DOE/CBFO-94-1012*

Programmatic and technical checklists were 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 technical and QA implementing procedures

2.2 Purpose

ORNL/CCP annual Recertification Audit A-13-12 was conducted to assess the level of compliance to the requirements of the WIPP HWFP and the CBFO QAPD from waste characterization and certification activities for RH and CH SCG S5000 debris waste, and CH SCG S4000 soils/gravel waste.

3.0 AUDIT TEAM

Martin Navarrete	Management Representative, CBFO Office of Quality Assurance
Porf Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)

4.0 AUDIT PARTICIPANTS

The individuals who were contacted during the audit are identified in Attachment 1. A pre-audit meeting was held in room T-224 at the Skeen-Whitlock Building in Carlsbad, New Mexico, on April 23, 2013. The audit was concluded with a post-audit meeting held in room T-224 at the Skeen-Whitlock Building in Carlsbad, New Mexico, on April 25, 2013.

Attachment 2 is the current status of the ORNL/CCP waste characterization processes and equipment list. Audit activities are described below.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

This audit was performed to assess the ability of ORNL/CCP to characterize RH and CH SCG S5000 debris waste and CH SCG S4000 soils/gravel waste to the requirements specified in the WIPP HWFP Waste Analysis Plan (WAP) and the CBFO QAPD. The scope of the audit included the evaluation of the following waste characterization methods: acceptable knowledge (AK) (including data quality objective reconciliation, and the preparation of Waste Stream Profile Forms), headspace gas sampling, real-time radiography, visual examination, nondestructive assay, and dose-to-curie. Other areas were generation and project-level data validation and verification and WIPP Waste Information System/Waste Data System data entry.

The audit team concluded that no waste characterization activities for RH and CH SCG S5000 debris waste and CH SCG S4000 soils/gravel waste have been performed by ORNL/CCP during the past year, thus all waste characterization activities have been deemed indeterminate.

5.2 General

5.2.1 Results of Previous Audits

The results of CBFO Recertification Audit A-12-08 of ORNL/CCP were examined. The audit team verified that no waste characterization activities have been performed by ORNL/CCP since the previous audit; therefore, the adequacy, implementation, and effectiveness of all waste characterization activities remain indeterminate.

5.2.2 Changes in Programs or Operations

No waste characterization activities have been performed by ORNL/CCP since the previous audit.

5.2.3 New Programs or Activities Being Implemented

No waste characterization activities have been performed by ORNL/CCP since the previous audit.

5.2.4 Changes in Key Personnel

No waste characterization activities have been performed by ORNL/CCP since the previous audit; there have been no changes in key personnel.

5.3 WAP-Related Quality Assurance Activities

The scope of the audit included the evaluation of quality assurance (QA) elements for personnel qualification and training, QA records, and control of nonconformances to requirements applicable to the WIPP HWFP WAP and the CBFO QAPD. The evaluation results for each area audited are described below.

5.3.1 Nonconformances

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for nonconformances were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.3.2 Personnel Qualification and Training

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit. The applicable requirements for personnel training and qualification were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.3.3 Records

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for records were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4 Technical Activities

The scope of the audit included the evaluation of technical elements for characterizing RH and CH SCG S5000 debris waste, and CH SCG S4000 soils/gravel waste to requirements applicable to the WIPP HWFP WAP and the CBFO QAPD. The evaluation results for each area audited are described below.

5.4.1 Generation and Project-Level Data Validation and Verification

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for generation and project level data validation and verification were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.2 Acceptable Knowledge

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for acceptable knowledge were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.3 Real-time Radiography

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for real-time radiography were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.4 Visual Examination

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for visual examination were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.5 Headspace Gas Sampling

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

Headspace gas sampling is no longer required.

5.4.6 Nondestructive Assay

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for nondestructive assay were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.7 Radiological Characterization

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for radiological characterization were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

5.4.8 WIPP Waste Information System/Waste Data System

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by ORNL/CCP since the previous audit.

The applicable requirements for WIPP Waste Information System/Waste Data System data entry were deemed indeterminate and will require a full evaluation as part of a recertification audit before waste characterization and certification activities resume.

6.0 CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify conditions adverse to quality (CAQs), as defined below, and document such conditions on a corrective action report (CAR).

Condition Adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the Quality Assurance (QA) program.

No CARs were issued during this audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. The audit team members and the Audit Team Leader (ATL) evaluate the CAQs to determine if they are significant.

Once a determination is made that the CAQ is not significant, the audit team member, in conjunction with the ATL, determines if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit. Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as corrected during the audit (CDA) according to the definition below.

CDAs – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence. Correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to correct a procedure (isolated), one or two forms not signed or not dated (isolated), and one or two individuals that have not completed a reading assignment.

No CDAs were identified and corrected during the audit.

7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify potential problems or suggestions for improvement that should be communicated to the audited organization. The audit team member, in conjunction with the ATL, evaluates these conditions and classifies them as Observations or Recommendations using the following definitions.

Observation – A condition that, if not controlled, could result in a CAQ.

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the condition appropriately.

7.1 Observations

No Observations were identified during the audit.

7.2 Recommendations

No Recommendations were provided to management during the audit.

8.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit

Attachment 2: Status of the ORNL/CCP Processes and Equipment List

PERSONNEL CONTACTED DURING THE AUDIT

PERSONNEL CONTACTED DURING AUDIT A-13-12				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
A.J. Fisher	CCP Senior Technical Advisor	X	X	X
Ed Gulbransen	NTPC Manager	X		X
Richard Kantrowitz	CCP SPM	X	X	X
Wayne Ledford	CCP QA Specialist	X	X	X
Mark Percy	CCP SPM	X	X	X
Tammy Reynolds	CCP Manager	X		X
Beverly Schrock	CCP SPM	X	X	X
Michael Sensibaugh	CCP Operations Manager	X	X	X

List of Processes and Equipment Reviewed

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Authorized by CBFO
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT			
N/A	Acceptable Knowledge Procedures – CCP-TP-002, CCP-TP-003, CCP-TP-005, & CCP-TP-506	Soils (S4000) Debris (S5000)	NO
N/A	Data Generation and Project Level Validation & Verification (V&V) Procedure – CCP-TP-001	Soils (S4000) Debris (S5000)	NO
N/A	WIPP Waste Information System (WWIS) Procedures – CCP-TP-030, CCP-TP-033, & CCP-TP-530	Soils (S4000) Debris (S5000)	NO
16RHVE1	Visual Examination (VE) Procedures – CCP-TP-163 and CCP-TP-500	Debris (S5000)	NO
16RR1	Real-Time Radiography Mobile Characterization System (MCS) RTR #6 Procedures – CCP-TP-053 & CCP-TP-165	Soils (S4000) Debris (S5000)	NO
16DTC1	Radiological Characterization (Dose-to-Curie) Procedure - CCP-TP-504	Debris (S5000)	NO
N/A	Headspace Gas Sampling Procedures – CCP-TP-082 & CCP-TP-093	Debris (S5000)	NO
16IQ1	Nondestructive Assay – Canberra Mobile Qualitative and Quantitative Drum Counter with Isotopics (IQ3) Procedures – CCP-TP-046, CCP-TP-047, & CCP-TP-048	Soils (S4000) Debris (S5000)	NO

List of Processes and Equipment Reviewed

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Authorized by CBFO
NEW PROCESSES OR EQUIPMENT			
NONE			
DEACTIVATED PROCESSES OR EQUIPMENT			
16SG1	Nondestructive Assay - DWAS/IPAN/SGS Procedures - CCP-TP-166, CCP-TP-167, CCP-TP-168, CCP-TP-169 & CCP-TP-172	Soils (S4000) Debris (S5000)	NO

**Table C6-1 Waste Analysis Plan (WAP) Checklist
ORNL/CCP Recertification Audit A-13-12
April 23-25, 2013**

**No waste characterization activities have been performed by ORNL/CCP since the last
CBFO recertification audit (A-12-08)**

**Table C6-2 Acceptable Knowledge (AK) Checklist
ORNL/CCP Recertification Audit A-13-12
April 23-25, 2013**

**No waste characterization activities have been performed by ORNL/CCP since the last
CBFO recertification audit (A-12-08)**

**Table C6-3 Radiography Checklist
ORNL/CCP Recertification Audit A-13-12
April 23-25, 2013**

**No waste characterization activities have been performed by ORNL/CCP since the last
CBFO recertification audit (A-12-08)**

**Table C6-4 Visual Examination (VE) Checklist
ORNL/CCP Recertification Audit A-13-12
April 23-25, 2013**

**No waste characterization activities have been performed by ORNL/CCP since the last
CBFO recertification audit (A-12-08)**