



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



ENTERED



MAY 28 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 Interim and Final Audit Report for the Hanford Site/Central Characterization Program, Recertification Audit A-13-15

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 Hanford/Central Characterization Program characterization activities, this letter transmits the Interim and Final Audit Report for Carlsbad Field Office (CBFO) Recertification Audit A-13-15 of the Hanford/Central Characterization Program in accordance with the Waste Isolation Pilot Plant Hazardous Waste Facility Permit. The report contains the results of the audit conducted May 14-16, 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 Navarrete, Acting Director for the CBFO Office of Quality Assurance, at (575) 234-7483, if you have any questions concerning this audit report.

Sincerely,

Jose R. Franco
Manager, Carlsbad Field Office

Enclosure



cc: w/Report Narrative

- J.R. Stroble, CBFO * ED
- M. Pinzel, CBFO ED
- T. Morgan, CBFO ED
- G. Basabilvazo, CBFO ED
- N. Castaneda, CBFO ED
- S. McCauslin, CBFO ED
- M. Navarrete, CBFO ED
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- A. Farabee, DOE-RL ED
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- T. Reynolds, NWP/CCP ED
- E. Gulbransen, NWP/CCP ED
- D. Ploetz, NWP/CCP ED
- M. Sensibaugh, NWP/CCP ED
- V. Cannon, NWP/CCP ED
- A.J. Fisher, NWP/CCP ED
- I. Joo, NWP/CCP ED
- M. Walker, NWP/CCP ED
- J. Carter, NWP/CCP ED
- J. Hoff, NWP/QA ED
- W. Ledford, NWP/QA ED
- M. Mullins, NWP/QA ED
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- L. Bender, EPA ED
- E. Feltcorn, EPA ED
- R. Joglekar, EPA ED
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- R. Lee, EPA ED
- T. Kliphuis, NMED ED
- S. Holmes, NMED ED
- R. Maestas, NMED ED
- C. Smith, NMED ED
- D. Winters, DNFSB ED
- P. Gilbert, LANL-CO ED
- G. Lyshik, LANL-CO ED
- B. Pace, CTAC ED
- G. White, CTAC ED
- D. Harvill, 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

*ED denotes electronic distribution

cc: w/enclosures

WIPP Operating Record

CBFO QA File

CBFO M&RC

U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

INTERIM AND FINAL AUDIT REPORT
OF THE
HANFORD SITE
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-13-15

MAY 14 - 16, 2013



Prepared by: *Berry D. Pace* Date: *5/23/13*
Berry D. Pace, CTAC
Audit Team Leader

Approved by: *Martin P. Navarrete* Date: *5-23-13*
Martin P. Navarrete, CBFO
Acting Director, Office of Quality Assurance

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-13-15 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 contact-handled (CH) Summary Category Group (SCG) S3000 homogeneous solids and S5000 debris waste at the Hanford Site. 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, May 14 – 16, 2013.

TRU waste characterization activities by the Hanford/CCP have been suspended with no characterization activities having occurred since the previous recertification audit (A-12-11, conducted May 15 – 16, 2012). The results of this audit have confirmed that CCP operations at the Hanford Site continue to be in a state of suspension.

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 Hanford/CCP characterization activities, and further directed: "If DOE cannot determine that the Hanford/CCP meets the requirements in Section 2.3.2.1 of the Permit, the Permittees shall not manage, store, or dispose waste from Hanford at WIPP, as required by section 2.3.2 of the Permit. Further, once waste characterization operations resume at Hanford, DOE must conduct a full site-specific audit at Hanford before waste shipments can be sent from Hanford to WIPP."

Since Hanford/CCP suspended waste characterization activities, 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 Hanford/CCP waste characterization activities continue to be indeterminate.

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

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated documentation to verify adequacy, implementation, and effectiveness of the Hanford/CCP TRU waste characterization activities for CH SCG S3000 homogeneous solids and S5000 debris 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 Hanford/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

Hanford/CCP annual Recertification Audit A-13-15 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 CH SCG S3000 homogeneous solids and S5000 debris waste.

3.0 AUDIT TEAM

Martin Navarrete	Management Representative, CBFO Office of Quality Assurance
Berry D. Pace	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 May 14, 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 May 16, 2013.

Attachment 2 is the current status of the Hanford/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 Hanford/CCP to characterize CH SCG S3000 homogeneous solids and S5000 debris 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 (including data quality objective reconciliation, and the preparation of Waste Stream Profile Forms), headspace gas sampling, real-time radiography, visual examination, and nondestructive assay. Other areas evaluated 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 CH SCG S3000 homogeneous solids or S5000 debris waste have been performed by Hanford/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-12-11 of Hanford/CCP were examined. The audit team verified that no waste characterization activities have been performed by Hanford/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 Hanford/CCP since the previous audit.

5.2.3 New Programs or Activities Being Implemented

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

5.2.4 Changes in Key Personnel

No waste characterization activities have been performed by Hanford/CCP since the previous audit; therefore 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 Hanford/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 Hanford/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 Hanford/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 CH SCG S3000 homogenous solids and S5000 debris waste to applicable requirements in 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 Hanford/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 Hanford/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 Hanford/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 Hanford/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 Hanford/CCP since the previous audit. Furthermore, headspace gas sampling is no longer required by the HWFP.

5.4.6 Nondestructive Assay

The audit team conducted interviews with responsible personnel and verified no waste characterization activities have been performed by Hanford/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 Hanford/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 Hanford/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 Hanford/CCP Processes and Equipment List

PERSONNEL CONTACTED DURING THE AUDIT

PERSONNEL CONTACTED DURING AUDIT A-13-15				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
W. Ledford	NWP/QA/QA Specialist	X	X	X
V. Waldram	NWP/CCP/Site Project Manager	X		X
N. Castaneda	CBFO/CH Certification Manager	X		X
M. Percy	NWP/CCP/Site Project Manager	X	X	X
M. Navarrete	CBFO/Sr. QA Specialist	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			
18GEAA	Radiological Characterization by NDA – Hanford Gamma Energy Assay System Unit A – 55-gallon drums Procedure – CCP-TP-071	Debris (S5000) Solids (S3000)	No
18GEAB	Radiological Characterization by NDA – Hanford Gamma Energy Assay System Unit B – 55-gallon drums Procedure – CCP-TP-071	Debris (S5000) Solids (S3000)	No
18SHENC	Super High Efficiency Neutron Counter “A” Platform (SHENC) Procedure – CCP-TP-137	Debris (S5000) Solids (S3000)	No
18RTRA	Real-Time Radiography System – 55-gallon drums Procedure – CCP-TP-053	Debris (S5000) Solids (S3000)	No
18RTRB	Real-Time Radiography System – 55-gallon drums Procedure – CCP-TP-053	Debris (S5000) Solids (S3000)	No
18HERTR	High-Energy Real-Time Radiography System – 55-/85-gallon drums and SWBs Procedure – CCP-TP-053	Debris (S5000) Solids (S3000)	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
18RLVE	Visual Examination Process – SWB and 55-gallon drums Procedure – CCP-TP-113	Debris (S5000)	No
N/A	Solids Sampling and Analysis	Solids (S3000)	No
N/A	Headspace Gas Sampling Procedure – CCP-TP-093	Debris (S5000)	No
N/A	Acceptable Knowledge Procedure – CCP-TP-002 and CCP-TP-005	Debris (S5000) Solids (S3000)	No
N/A	Data Generation and Project Level Validation & Verification (V&V) Procedure – CCP-TP-001	Debris (S5000) Solids (S3000)	No
N/A	WIPP Waste Information System (WWIS)/Waste Data System (WDS) Procedure – CCP-TP-030	Debris (S5000) Solids (S3000)	No
N/A	Quality Assurance	Debris (S5000) Solids (S3000)	No
NEW PROCESSES OR EQUIPMENT			
Characterization activities are currently suspended, therefore no new processes or equipment introduced.			
DEACTIVATED PROCESSES OR EQUIPMENT			
Characterization activities are currently suspended.			

**Table C6-1 Waste Analysis Plan (WAP) Checklist
Hanford/CCP Recertification Audit A-13-15
May 14 - 16, 2013**

**No waste characterization activities have been performed by Hanford/CCP since the last
CBFO recertification audit (A-12-11)**

**Table C6-2 Acceptable Knowledge (AK) Checklist
Hanford/CCP Recertification Audit A-13-15
May 14 - 16, 2013**

**No waste characterization activities have been performed by Hanford/CCP since the last
CBFO recertification audit (A-12-11)**

**Table C6-3 Radiography Checklist
Hanford/CCP Recertification Audit A-13-15
May 14 – 16, 2013**

**No waste characterization activities have been performed by Hanford/CCP since the last
CBFO recertification audit (A-12-11)**

**Table C6-4 Visual Examination (VE) Checklist
Hanford/CCP Recertification Audit A-13-15
May 14 - 16, 2013**

**No waste characterization activities have been performed by Hanford/CCP since the last
CBFO recertification audit (A-12-11)**