



United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: MAY 13 2013

REPLY TO
ATTN OF: CBFO:NTP:JRS:GL:13-0503:UFC 5900.00

SUBJECT: Hanford-CCP Recertification Audit A-12-11 Contact-Handled Activities

TO: Oliver Farabee, DOE-Richland
M. F. Sharif, General Manager, Nuclear Waste Partnership, LLC

The Carlsbad Field Office (CBFO) has completed the recertification Audit A-12-11 of the Central Characterization Project (CCP) Transuranic (TRU) waste program deployed at the Hanford site (hereinafter referred to as Hanford-CCP) conducted May 15-16, 2012 at the Skeen-Whitlock Building in Carlsbad, New Mexico.

The Hanford-CCP suspended characterization activities at the end of September 2011 due to funding limitations. No new containers were introduced into the characterization process after September 2011. Containers requiring the completion of data generation level and project level activities to finalize the characterization process continued for a short time thereafter. The documentation reviewed, and the characterization activities as described in the implementing procedures, were determined to be adequate, satisfactorily implemented, and effective. The audit team was unable to evaluate Headspace Gas (HSG) sampling, Real-Time Radiography (RTR), Visual Examination (VE), Nondestructive Assay (NDA) characterization activities in the field, or verify personnel and equipment were available to continue characterization activities. For this reason, the audit team was unable to determine the implementation and effectiveness of characterization procedures for HSG sampling, RTR, VE, and NDA; therefore, these processes were deemed indeterminate.

The CCP Corrective Action Management program was evaluated on March 18, 2013 (CBFO Surveillance S-13-22) subsequent to a revision of CCP procedure CCP-QP-029, Corrective Action Management. This procedure combined the process for corrective actions which were previously contained in two separate procedures. The surveillance determined that the process remained adequate and effectively implemented.

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The audit team determined that for the documentation evaluated, the Hanford-CCP TRU programs were in compliance with the Waste Analysis Plan (WAP) of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the Quality Assurance Program Document (QAPD), the Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WIPP WAC), the Contact-Handled (CH) TRUPACT-II Authorized Methods of Payload Compliance (TRAMPAC), and the TRUPACT-II Certification of Compliance. The audit team determined that the procedures/documents reviewed were effectively implemented.

Based on the results of CBFO Audits/Surveillances (See Attachment 1), and conditions and limitations provided by the New Mexico Environment Department (NMED) and the Environmental Protection Agency (EPA), the CBFO suspends continued authority at the Hanford-CCP for characterization, certification, and transportation activities for CH Solids (S3000) Waste Stream RLCCPPUNIT and CH Debris (S5000), as identified in Table 1, Page 4 of this memorandum. The CBFO has suspended waste characterization and shipping authority at the Hanford-CCP for characterization, certification, and transportation activities for CH Solids (S3000) Waste Stream RLCCPPUNIT and CH Debris (S5000), as identified in Table 1, Page 4 of this memorandum for waste characterized after September 2011. Once funding limitations have been resolved and waste characterization activities resume, the CBFO will conduct a recertification audit as a basis for reinstating authority to perform waste characterization activities and continue shipments from Hanford-CCP.

TRU waste characterization, certification, or transportation activities using significantly revised or new processes, procedures, or systems must be evaluated by the CBFO prior to their implementation. Included in this memorandum are the following attachments:

- Attachment 1 describes the CCP certification program status;
- Attachment 2 contains the list of processes/equipment from Table 1 of this memorandum certified at the site;
- Attachment 3 contains the list of CCP certified procedures/documents; and,
- Attachment 4 describes specific CCP waste characterization process elements that must be reported to the EPA. These process elements are identified as Tier 1 changes and Tier 2 changes. The Hanford-CCP shall not ship for disposal at the WIPP any wastes affected by a Tier 1 process element change without prior CBFO approval, and the CCP shall report Tier 2 changes to the CBFO on a quarterly basis.

If you have any questions, please contact Mr. J.R. Stroble, Director, Office of the National TRU Program, at (575) 234-7313.



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

Attachment(s)

cc: w/attachments

G. Basabilvazo, CBFO	*ED	K. Guillermo, NWP	ED
N. Castaneda, CBFO	ED	E. Gulbransen, NWP	ED
S. McCauslin, CBFO	ED	R. Galbraith, NWP	ED
T. Morgan, CBFO	ED	A. Johnson, NWP	ED
D. Miehl, CBFO	ED	C. Kirkes, NWP	ED
M. Navarrete, CBFO	ED	S. Kouba, NWP	ED
M Pinzel, CBFO	ED	C. Luoma, NWP	ED
J. R. Stroble, CBFO	ED	L. Oberbeck, NWP	ED
D. Boone, TWPC	ED	M. Percy, NWP	ED
G. Pyles, TWPC	ED	D.K. Ploetz, NWP	ED
E. Feltcorn, EPA	ED	R. Reeves, NWP	ED
R. Joglekar, EPA	ED	T. Reynolds, NWP	ED
T. Peake, EPA	ED	T. Sellmer, NWP	ED
S. Holmes, NMED	ED	V. Waldram, NWP	ED
J. Kielling, NMED	ED	M. Carter, LANL	ED
T. Kliphuis, NMED	ED	P. Gilbert, LANL	ED
C. Smith, NMED	ED	G. Lyshik, LANL	ED
V. Cannon, NWP	ED	W. Weyerman, LANL	ED
J. Carter, NWP	ED	S. Percy, SM Stoller	ED
C. Chester, NWP	ED	RCRA Chronology Record	ED
A. Fisher, NWP	ED	WIPP Operating Record	ED
		CBFO M&RC	

*ED denotes electronic distribution

Table 1 – Hanford-COP CH Approved Waste Characterization Processes

Characterization Process	CH S3000 Waste Stream RLCCPPUNIT ²		CH S5000 Debris	
	Newly Generated	Retrievably- Stored	Newly Generated	Retrievably- Stored
Acceptable Knowledge ³	Suspended	Suspended	Suspended	Suspended
Load Management	N/A	N/A	N/A	N/A
Data Validation & Verification (V&V) ³	Suspended	Suspended	Suspended	Suspended
Visual Examination ³	N/A	N/A	Suspended	Suspended
Solids Sampling & Analysis ¹	N/A	N/A	N/A	N/A
Headspace Gas Sampling (Summa [®]) ¹	N/A	N/A	N/A	N/A
Nondestructive assay (NDA)	Suspended	Suspended	Suspended	Suspended
Real-time Radiography (RTR) ³	Suspended	Suspended	Suspended	Suspended
Dose-to-Curie (DTC)	N/A	N/A	N/A	N/A
WIPP Waste Information System (WWIS)/Waste Data System ³	Suspended	Suspended	Suspended	Suspended

¹ As of March 13, 2013, the WIPP Hazardous Waste Permit was changed and chemical sampling is no longer required. ² EPA issued a limited approval for characterization of CH S3000 Waste Stream RLCCPPUNIT using AK, NDA, and RTR.

³ Requires re-evaluation and NMED approval before waste shipments can resume. (Per NMED letter to CBFO Manager dated March 2, 2012).

**CENTRAL CHARACTERIZATION PROJECT
AT HANFORD
CERTIFICATION PROGRAM STATUS**

The CBFO Director of the Office of the National TRU Program and the CBFO Director of Quality Assurance Program have evaluated the documentation supporting the compliance of the Central Characterization Project (CCP) TRU waste program deployed at the Hanford site (hereinafter referred to as Hanford-CCP).

PROGRAM STATUS

All program elements remain complete to the end of September 2011. Waste characterization and shipment authority has been suspended until funding limitations have been resolved and waste characterization activities resume, CBFO will conduct a recertification audit as a basis for reinstating authority to perform waste characterization activities and continue shipments from Hanford-CCP.

- The following site documents are *current* and demonstrate how the CCP complies with the CBFO requirements.
 - **QAPjP – CCP-PO-001, Revision 20, CCP Transuranic Waste Characterization Quality Assurance Project Plan**
CBFO Memo-CBFO:NTP:JRS:GS:11-0351:UFC 5900.00 dated June 15, 2011;
 - **WCP – CCP-PO-002, Revision 26, CCP Transuranic Waste Certification Plan QAP – Section 4.0 of CCP-PO-002**
CBFO Memo-CBFO:NTP:JRS:ANC:11-0396:UFC 5900.00 dated July 14, 2011;
 - **TRAMPAC – CCP-PO-003, Revision 12, CCP Transuranic Authorized Methods For Payload Control**
CBFO Memo-CBFO:NTP:MRB:GS:10-2055:UFC 5900.00 dated December 17, 2010.
- Certified Systems – see Attachment 2 List of Processes/Equipment certified from Table 1 of this Memorandum that is certified and used by the CCP at the Hanford.
- Standard Operating Procedures – see Attachment 3 for the complete list of certified procedures/documents used by the CCP at the Hanford.
- Tiering of CH TRU Waste Characterization Processes – see Attachment 4 for the implementation by CCP at the Hanford (based on EPA Baseline Inspections).
- CBFO conducted Recertification Audit A-12-11 of the Hanford-CCP on May 15-16, 2012.
 - Interim Audit Report was issued on June 19, 2012.
 - Final Audit Report was issued on October 31, 2012.

- NMED issued approval on March 20, 2013.
- CBFO conducted Audit 12-09 of the Quality Assurance Program on March 6-8, 2012.
 - CAR 12-010 and CAR 12-011 were issued on March 16, 2012.
 - CAR 12-010 was closed on May 10, 2012.
 - CAR 12-011 was closed on April 25, 2012.
 - Audit Report was issued on April 4, 2012.
- CBFO conducted Audit A-13-03 of the CCP Transportation Activities on December 4-6, 2012.
 - Audit Report was issued on January 23, 2013.
- CBFO conducted Surveillance S-13-22 to evaluate CCP-QP-029, Revision 0 for adequacy and effective implementation of the CCP Corrective Action Management Program.
 - Surveillance Report was issued on March 20, 2013.
- The EPA concurred on the recertification memo on April 18, 2013.

RECOMMENDATION

The recommendation to the CBFO Manager is to suspend the authority for characterization, certification, and transportation activities of contact-handled (CH) debris (S5000) waste and S3000) solid Waste Stream RLCCPPUNIT at the Hanford Site until funding limitations have been resolved and waste characterization activities resume. Once Hanford CCP successfully completes a CBFO certification audit, the CBFO will grant authority for waste characterization and shipment activities at Hanford CCP. Attachments 2 and 3 list the systems and procedures that constitute the bounds of this authority. Attachment 4 is the CH Tiering of the TRU Waste Characterization Processes implemented by the Hanford-CCP.

CONCURRENCE



Dennis Miehl, Acting Director
CBFO Quality Assurance

5-9-13
Date



J. R. Stroble, Director
Office of the National TRU Program

5-9-13
Date

CENTRAL CHARACTERIZATION PROJECT					
LIST OF CH EQUIPMENT AND PROCESSES REQUIRING EVALUATION AND CERTIFICATION AT HANFORD					
WIPP WWIS #	Site Equipment # or Title	Description	Components	Software	NDA Operating Range
Nondestructive Assay					
18GEAA	Hanford GEA Unit A	Gamma Energy Assay– 55 gallon drums Procedure CCP-TP-071	<ul style="list-style-type: none"> • Coaxial detectors • LEGe detectors • Canberra Digital Signal Processor 	<ul style="list-style-type: none"> • NDA 2000 • Genie 2000 	≈0.01-325g Total Weapons Grade Pu
18GEAB	Hanford GEA Unit B	Gamma Energy Assay– 55 gallon drums Procedure CCP-TP-071	<ul style="list-style-type: none"> • Coaxial detectors • LEGe detectors • Canberra Digital Signal Processor 	<ul style="list-style-type: none"> • NDA 2000 • Genie 2000 	≈0.01-325g Total Weapons Grade Pu
18SHENC	Hanford SHENCA	Super High Efficiency Neutron Counter "A" platform (SHENCA) – SWBs Procedure CCP-TP-137	<ul style="list-style-type: none"> • HPGe Detector • (260) ³He Tubes • Neutron Assay Chamber • Gamma Assay Area with rotator • Cf-252 Add-a-Source assembly 	<ul style="list-style-type: none"> • SUPRHENC.EXE • PC-FRAM (fixed energy response function analysis with multiple efficiencies) • MAESTRO • Neutron Gamma Integration (NGI) • SuperHENC_QC.xls 	The calibration of the SuperHENC is documented in BII-5169- CVR-001, "Calibration and Validation Report SuperHENC Mobile Assay System SHENCA." The TMU for the SuperHENC is documented in BII-5169- CVR-001, Section 4.14.
Nondestructive Examination					
18RTRA	Hanford RTR Unit A	Real-Time Radiography System Procedure CCP-TP-053	<ul style="list-style-type: none"> • Shielded x-ray enclosure • Drum manipulation equipment • X-ray imaging system including x- ray tube, image intensifier, and video camera • Video/audio recording equipment 	N/A	N/A
18RTRB	Hanford RTR Unit B	Real-Time Radiography System Procedure CCP-TP-053	<ul style="list-style-type: none"> • Shielded x-ray enclosure • Drum manipulation equipment • X-ray imaging system including x- ray tube, image intensifier, and video camera • Video/audio recording equipment 	N/A	N/A
18HERTR	Hanford HERTR	High-Energy Real-Time Radiography System	<ul style="list-style-type: none"> • Shielded x-ray enclosure • SWB or Drum manipulation 	N/A	N/A

CENTRAL CHARACTERIZATION PROJECT					
LIST OF GH EQUIPMENT AND PROCESSES REQUIRING EVALUATION AND CERTIFICATION AT HANFORD					
WIPP WNIS #	Site Equipment # or Title	Description	Components	Software	NDA Operating Range
		Procedure CCP-TP-053	equipment <ul style="list-style-type: none"> • X-ray imaging system including X-ray source, detector and video camera • Video/audio recording equipment 		
Visual Examination					
18RLVE		CCP-TP-113 CCP Standard Contact-Handled Waste Visual Examination – SWB and 55-gallon drums	None	N/A	N/A

CENTRAL CHARACTERIZATION PROJECT CH LIST OF PROCEDURES AT HANFORD SITE SUSPENDED FOR USE		
#	Procedure No.	Procedure Title
1.	CCP-PO-001	CCP Transuranic Waste Certification Quality Assurance Project Plan
2.	CCP-PO-002	CCP Transuranic Waste Certification Plan
3.	CCP-PO-003	CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)
4.	CCP-PO-005	CCP Conduct of Operations
5.	CCP-PO-008	CCP Quality Assurance Interface with the WTS Quality Assurance Program
6.	CCP-PO-011	CCP/CH2M-HILL Plateau Remediation Company Interface Document
7.	CCP-QP-001	CCP Graded Approach
8.	CCP-QP-002	CCP Training and Qualification Plan
9.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
10.	CCP-QP-008	CCP Records Management
11.	CCP-QP-010	CCP Document Preparation, Approval, and Control
12.	CCP-QP-011	CCP Laboratory Logbooks
13.	CCP-QP-014	CCP Quality Assurance Trend Analysis and Reporting
14.	CCP-QP-015	CCP Procurement
15.	CCP-QP-016	CCP Control of Measuring and Testing Equipment
16.	CCP-QP-017	CCP Identification and Control of Items
17.	CCP-QP-018	CCP Management Assessment
18.	CCP-QP-019	CCP Quality Assurance Reporting to Management
19.	CCP-QP-021	CCP Surveillance Program
20.	CCP-QP-022	CCP Software Quality Assurance Plan
21.	CCP-QP-023	CCP Handling, Storage and Shipping
22.	CCP-QP-026	CCP Inspection Control
23.	CCP-QP-027	CCP Test Control
24.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
25.	CCP-QP-029	CCP Corrective Action Management
26.	CCP-QP-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
27.	CCP-TP-001	CCP Project Level Data Validation and Verification
28.	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
29.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization
30.	CCP-TP-005	CCP Acceptable Knowledge Documentation
31.	CCP-TP-028	CCP Radiographic Test Drum and Training Container Construction
32.	CCP-TP-030	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
33.	CCP-TP-033	CCP Shipping of CH TRU Waste
34.	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
35.	CCP-TP-058	CCP NDA Performance Demonstration Program
36.	CCP-TP-068	CCP Standardized Container Management
37.	CCP-TP-070	CCP Gamma Energy Assay (GEA) Calibration, Confirmation, and Verification Procedure
38.	CCP-TP-071	CCP Gamma Energy Assay (GEA) Operating Procedure
39.	CCP-TP-072	CCP Gamma Energy Assay (GEA) Data Review, Validation, and Reporting Procedure
40.	CCP-TP-082	CCP Waste Container Filter Vent Operation
41.	CCP-TP-086	CCP CH Packaging Payload Assembly
42.	CCP-TP-093	CCP Sampling of TRU Waste Containers
43.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation
44.	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination
45.	CCP-TP-137	CCP Operation of the Hanford SuperHENC Assay System
46.	CCP-TP-144	CCP Hanford SuperHENC Calibration Procedure
47.	CCP-TP-148	CCP SuperHENC Data Reviewing, Validating, and Reporting Procedure
48.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
49.	CCP-TP-180	CCP Analytical Sample Management
50.	CCP-TP-198	CCP HE-RTR Operating Procedure

CENTRAL CHARACTERIZATION PROJECT DEACTIVATED LIST OF PROCEDURES AT HANFORD SITE			
#	Procedure No.	Procedure Title	
1.	CCP-QP-004	CCP Corrective Action Management	February 6, 2013
2.	CCP-QP-006	CCP Corrective Action Reporting and Control	February 6, 2013

**Table 1. Revised Tiering of TRU Waste Characterization Processes Implemented by Hanford-CCP (November 2011)
(Original Tiering Based on the Baseline Inspection issued on December 15, 2010)**

Process Elements	Hanford-CCP T1 Changes Needing EPA Review and Approval	Hanford-CCP T2 Changes ^a
Acceptable Knowledge (AK)	Implementation of load management (AK 13) Implementation of AK for wastes other than retrievably stored and newly generated S5000 debris and S3000 Waste Stream RLOCFFUNIT. (AK 1)	Notification to EPA upon completion of new versions or updates/substantive changes ^b of the following: <ul style="list-style-type: none"> - Modification of CCP-TP-005, Revision 18 (AK 4) - Availability of modifications to the AKSR (AK 5) - Availability of all final WSPF with related attachments (AK 9) - Availability of all AK Accuracy Reports (AK 12) - Availability of successful training records (AK 10) - Availability of the AK-NDA memorandum (AK 14)
Non-Destructive Assay (NDA)	New equipment or physical modifications to approved equipment ^c (NDA 1) Extension or changes to approved calibration range for approved equipment (NDA 2)	Notification to EPA upon completion of changes to software for approved equipment, operating range(s), and site procedures that require CBFO approval (NDA 2)
Real-Time Radiography (RTR)	There are no T1 changes at this time	Notification to EPA upon the following: <ul style="list-style-type: none"> - Modification^a to approved equipment, RTR units A and B (RTR 2) - Completion of changes to site RTR procedures requiring CBFO approval (RTR 2) - Addition of new SCG to the RTR processes that are subject to this approval (RTR 2) - Implementation of a different type of RTR equipment (RTR 2)
Visual Examination (VE)	Performance of VE by any method other than using two trained operators to perform actual VE at the time of packaging (VE 1)	Notification to EPA upon the following: <ul style="list-style-type: none"> - Completion of changes to site VE procedures requiring CBFO approval (VE 2) - Addition of new SCG to the VE processes that are subject to this approval (VE 2)
Waste Data System (WDS)	There are no T1 changes at this time	Notification to EPA upon the following: <ul style="list-style-type: none"> - Completion of changes to WDS procedure(s) requiring CBFO approval (WDS 2) - Changes to the Excel spreadsheet titled WDS Master Template.xls, Revision 2, Addendum #2, SCO #1065 (WDS 2)

^a Upon receiving EPA approval, Hanford-CCP will report all T2 changes to EPA at the end of each fiscal year quarter. Note: EPA may request specific T2 change items before the end of a fiscal quarter.

^b "Substantive changes" means changes with the potential to impact the site's waste characterization activities or documentation thereof, excluding changes that are solely related to ES&H, nuclear safety, RCRA or are editorial in nature.

^c Modifications to approved equipment include all changes with the potential to affect NDA data relative to waste isolation and exclude minor changes, such as the addition of safety-related equipment.