

United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: SEP - 1 2011

REPLY TO
ATTN OF: CBFO:NTP:JRS:GS:11-1735:UFC 5900.00

SUBJECT: Bettis Atomic Power Laboratory - Central Characterization Project Initial Remote-Handled Certification Audit A-11-12

TO: Christopher Labee, DOE-NRLFO
Farok Sharif, General Manager, WTS

The Carlsbad Field Office (CBFO) has completed the initial Certification Audit A-11-12 of the Central Characterization Project (CCP) Transuranic (TRU) waste characterization activities deployed at the Bettis Atomic Power Laboratory (BAPL) Site (hereinafter referred to as BAPL-CCP) conducted on April 19-21, 2011. CBFO certified Remote-Handled (RH) Summary Category Group (SCG) S5000 debris. The characterization, certification and quality assurance activities were determined to be adequate, satisfactorily implemented and effective.

The audit team determined that the BAPL-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 *TRU Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WIPP WAC)*, and the *RH Transuranic Authorized Methods for Payload Control (TRAMPAC)*, *RH TRU 72B Safety Analysis Report (SAR)*, and *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPPIP)*. The audit team determined that the procedures/documents were effectively implemented.

Based on the result of audits, surveillances, conditions and limitations provided by the New Mexico Environment Department (NMED) and the U.S. Environmental Protection Agency (EPA), CBFO is granting authority at the BAPL-CCP for TRU waste characterization, certification, and transportation activities as identified in Table 1, page 3 of this memo.

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

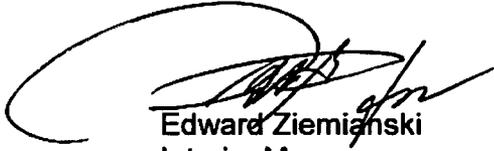
- *Attachment 1* describes the CCP certification program status,
- *Attachment 2* contains the list of processes/equipment from Table 1 of this memorandum certified at the site,
- *Attachment 3* contains the list of CCP certified procedures/documents, and

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- **Attachment 4** describes specific CCP waste characterization process elements that must be reported to EPA. These process elements are identified as Tier 1 changes and Tier 2 changes. The BAPL-CCP shall not ship for disposal at WIPP any wastes affected by a Tier 1 process element change without prior CBFO approval, and CCP shall report Tier 2 changes to CBFO on a quarterly basis.

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



Edward Ziemianski
Interim Manager

Attachments (4)

cc: w/attachments	
D. Garcia, CBFO	*ED
J. R. Stroble, CBFO	ED
M. Pinzel, CBFO	ED
R. Unger, CBFO	ED
G. Basabilvazo, CBFO	ED
S. McCauslin, CBFO	ED
T. Peake, EPA	ED
E. Feltcorn, EPA	ED
R. Joglekar, EPA	ED
J. Kieling, NMED	ED
S. Holmes, NMED	ED
F. Sharif, WTS	ED
M. Percy, WTS	ED
D. Ploetz, WTS	ED
M. Sensibaugh, WTS	ED
I. Quintana, WTS	ED
R. Chatfield, WTS	ED
J. Harvill, WTS	ED
C. Kirkes, WTS	ED
D. Standiford, WTS	ED
M. Strum, WTS	ED
R. Allen, CTAC	ED
D. Sellmer, CTAC	ED
P. Gilbert, LANL	ED
G. Lyshik, LANL	ED
S. Percy, SM Stoller	ED
P. Roush, WIPP Operating Record	ED
CBFO M&RC	
*ED denotes electronic distribution	

Table 1 – BAPL-CCP RH Certified Waste Characterization Processes		
Characterization Process	RH S5000 Debris²	
	Newly generated	Retrievably Stored
Acceptable Knowledge	N/A	Approved
Load Management	N/A	N/A
Data Validation & Verification (V&V)	N/A	Approved
Visual Examination	N/A	Approved
RH Waste Sampling & Analysis	N/A	N/A
Headspace Gas Sampling (Summa [®]) ¹	N/A	Approved
Nondestructive assay (NDA)	N/A	N/A
Real-time Radiography (RTR)	N/A	N/A
Dose-to-Curie (DTC)	N/A	Approved
WIPP Waste Information System (WWIS)	N/A	Approved
¹ Analysis is performed by the Idaho National Laboratory, which is approved under a separate certification. ² EPA approved 15 HIPs packaged in 55-gallon drums in Waste Stream BT-T001.		

**CENTRAL CHARACTERIZATION PROJECT DEPLOYMENT AT
BETTIS ATOMIC POWER LABORATORY (BAPL)
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 Bettis Atomic Power Laboratory (BAPL) site (hereinafter referred to as BAPL-CCP). Attachments 2 and 3 provide complete lists of certified processes, procedures, documents, and systems deployed at the BAPL-CCP. Attachment 4 is the RH Tiering of TRU Waste Characterization Processes implemented by the CCP at BAPL.

STATUS

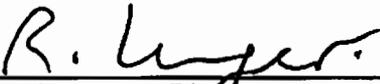
- All program elements remain complete.
- The following site documents are *current* and demonstrate how the CCP complies with the CBFO requirements for Audit A-11-12.
 - **CCP-PO-001, Revision 18, CCP Transuranic Waste Characterization Quality Assurance Project Plan**
(CBFO Memo-CBFO:NTP:CF:GS:10-1422:UFC 5900.00 dated June 29, 2010).
 - **CCP-PO-002, Revision 25, CCP Transuranic Waste Certification Plan QAP – Section 4.0 of CCP-PO-002**
(CBFO Memo-CBFO:NTP:JRS:MDA:10-2076:UFC 5900.00 dated December 21, 2010).
 - **CCP-PO-505, Revision 0, CCP Remote-Handled Transuranic Waste Authorized Methods For Payload Control**
(CBFO Memo-CBFO:NTP:CF:GS:06-1355:UFC 5900.00 dated September 20, 2006).
- Certified Systems – see Attachment 2 List of Processes/Equipment from Table 1 of this Memorandum that is certified and used by the CCP at the BAPL.
- Standard Operating Procedures – see Attachment 3 for the complete list of certified procedures/documents used by the CCP at the BAPL.
- Tiering of the RH TRU Waste Characterization Processes – see Attachment 4 for the implementation by CCP at BAPL (based on EPA Baseline Inspections).

- CCP participated in the following performance demonstration program (PDP) for Audit A-11-12:
 - HSG PDP (CCP-INL) - SUMMA sampling is performed by CCP, analysis is performed by the Idaho National Laboratory, which is approved under a separate certification.
- CBFO conducted RH Initial Certification Audit A-11-12 of the BAPL-CCP on April 19-21, 2011.
 - The Interim Audit Report was issued on May 12, 2011.
 - The Final Audit Report was issued to NMED on July 25, 2011.
 - NMED approval on Audit A-11-12 was issued on August 23, 2011.
 - EPA issued the Baseline Approval on July 28, 2011, DOCKET NO: A-98-49, II-A4-151.
- CBFO conducted Audit A-11-06 of the CCP Quality Assurance Program (QAP) on March 1-3, 2011.
 - The Audit Report was issued on March 28, 2011.
- CBFO conducted Audit A-10-25 of the CCP Transportation Activities for all sites on September 21-23, 2010.
 - The Audit Report was issued on October 5, 2010.
- CBFO conducted Surveillance S-10-37 of the BAPL-CCP RH Waste Sampling and Visual Examination (VE) characterization process on September 21-22, 2010.
 - CAR 11-001 was issued on October 5, 2010 and closed on November 2, 2011.
 - The Surveillance Report was issued on October 7, 2010.
- CBFO conducted Surveillance S-11-08 of the BAPL-CCP Dose-to-Curie and Headspace Gas Sampling characterization process on December 7-8, 2010.
 - The Surveillance Report was issued on December 30, 2010.
- The EPA concurred on the draft initial certification memo on August 26, 2011.

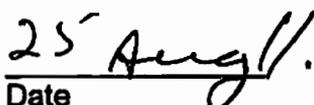
RECOMMENDATION

The recommendation to the CBFO Manager is to grant CCP at BAPL the authority for TRU waste characterization, certification, and transportation activities of remote-handled (RH) debris (S5000) waste. Attachments 2, 3 and 4 list the systems and procedures that constitute the bounds of this authority.

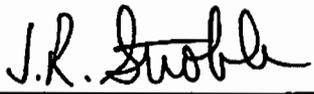
CONCURRENCE



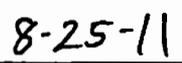
Randy Unger, Director
CBFO Quality Assurance



Date



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



Date

CENTRAL CHARACTERIZATION PROJECT List of Processes/Equipment Certified from Table 1 of Memo at Bettis Atomic Power Laboratory					
WIPP WWIS #	Site Process or Equipment Number	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
Dose-to-Curie					
19DTC1	Dose-to-Curie	Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH hot cell debris waste stream for which the scaling factors are applicable, as described in CCP-AK-BAPL-501. Procedure CCP-TP-504	As identified in CCP-TP-504	As identified in CCP-TP-504	N/A
Visual Examination					
19RHVE1	Visual Examination Activities	VE of RH debris waste drums CCP-TP-500	N/A	N/A	N/A
Headspace Gas					
Analysis is performed by the INL, which is approved under a separate certification	HSG	SUMMA ® Sampling process of each waste stream lot upon completion of packaging	As identified in CCP-TP-093	As identified in CCP-TP-093	N/A

CENTRAL CHARACTERIZATION PROJECT LIST OF CERTIFIED PROCEDURES at Bettis Atomic Power Laboratory		
#	Procedure No.	Procedure Title
1.	CCP-PO-001	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	CCP Transuranic Waste Certification Plan
3.	CCP-PO-008	CCP Quality Assurance Interface with the WTS Quality Assurance Program
4.	CCP-PO-511	CCP/BAPL RH-TRU Waste Interface Document
5.	CCP-PO-505	CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)
6.	CCP-QP-001	CCP Graded Approach
7.	CCP-QP-002	CCP Training and Qualification Plan
8.	CCP-QP-004	CCP Corrective Action Management
9.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
10.	CCP-QP-006	CCP Corrective Action Reporting and Control
11.	CCP-QP-008	CCP Records Management
12.	CCP-QP-010	CCP Document Preparation, Approval and Control
13.	CCP-QP-015	CCP Procurement
14.	CCP-QP-016	CCP Control of Measuring, Testing, and Data Collection Equipment
15.	CCP-QP-018	CCP Management Assessment
16.	CCP-QP-019	CCP Quality Assurance Reporting to Management
17.	CCP-QP-021	CCP Surveillance Program
18.	CCP-QP-022	CCP Software Quality Assurance Plan
19.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
20.	CCP-TP-001	CCP Project Level Data Validation and Verification
21.	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
22.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization
23.	CCP-TP-005	CCP Acceptable Knowledge Documentation
24.	CCP-TP-093	CCP Sampling of TRU Waste Containers
25.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation
26.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
27.	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
28.	CCP-TP-505	CCP Removable Lid Canister Loading
29.	CCP-TP-504	CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste
30.	CCP-TP-506	CCP Preparation of the Remote-Handled Transuranic Waste Acceptable Knowledge Characterization Reconciliation Report
31.	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic Waste
32.	CCP-TP-509	CCP Remote-Handled Transuranic Container Tracking
33.	CCP-TP-512	CCP Remote-Handled Waste Sampling
34.	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry

**EPA Tiering of RH TRU Waste Characterization Processes Implemented by
CCP at BAPL
Based on EPA Baseline Inspection No. EPA-BAPL-CCP-RH-04.11-8
DOCKET # A-98-49; II-A4-151**

RH AK Tiers

Baseline Approval: EPA is approving the AK process evaluated during this baseline inspection. This approval is limited to the 15 high-pressure containers (HIPs) packaged in 55-gallon drums in Waste Stream BT-T001. EPA expects to receive copies of the final Waste Stream Profile Form (WSPF) and related attachments and the final AK accuracy report when they are available.

RH Radiological Characterization Tiers

Baseline Approval: EPA is approving the radiological characterization process consisting of DTC as described in CCP-TP-504 in conjunction with the radionuclide-scaling factors documented in CCP-AK-BAPL-501, Revision 1, that were evaluated during this baseline inspection. This approval is limited to the 15 HIPs containing Waste Stream BT-T001.

RH VE Tiers

Baseline Approval: EPA is approving the VE process for the RH TRU Waste Stream BT-T001 as observed at Bettis Laboratory and as documented in the VE BDR No. RHBAPLVE100001 evaluated for this baseline inspection.