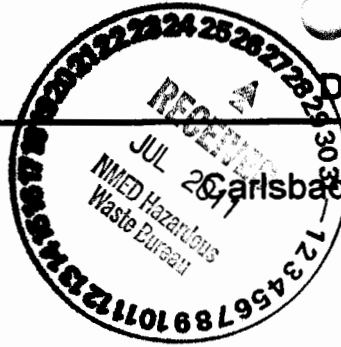


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United States Government

# memorandum

Department of Energy

Carlsbad Field Office  
Carlsbad, New Mexico 88221

**DATE:** JUL 27 2011

**REPLY TO**  
**ATTN OF:** CBFO:NTP:JRS:GS:11-1415:UFC 5900.00

**SUBJECT:** Recertification Expansion of CH and RH Activities at SRS to Include the Audit A-11-18, CCP TRUPACT-III Transportation Operations

**TO:** David Moody, Manager, Savannah River Site  
M. F. Sharif, General Manager, Washington TRU Solutions LLC

The Carlsbad Field Office (CBFO) is expanding the Savannah River Site-Central Characterization Project (SRS-CCP) current recertification memo CBFO:NTP:JRS:GS:11-0343:UFC 5900.00 dated June 21, 2011. This expansion reflects the issuance of the Final Audit Report dated June 20, 2011, for Audit A-11-18, CCP TRUPACT-III Transportation Operations.

CBFO conducted the recertification audit of the Contact-Handled (CH) and Remote-Handled (RH) CCP transuranic (TRU) waste program deployed at SRS, hereinafter referred to as SRS-CCP. The audit team also evaluated for initial certification the Real-Time Radiography (RTR) Unit 4 to characterize Standard Large Box 2s (SLB2s) and the Large Container Non-Destructive Examination (LCNDE) System to characterize Standard Waste Boxes (SWBs) and SLB2s. Audit A-11-01 was conducted October 26-28, 2010. The characterization activities were determined to be adequate, satisfactorily implemented, and effective.

Audit A-10-11 was conducted to evaluate the CCP Quality Assurance Program (QAP) on March 2-4, 2010. Audit A-10-25 was conducted to evaluate the CCP CH and RH transportation activities on September 21-23, 2010.

The audit team determined that the SRS-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 *CH and RH Transuranic Authorized Methods for Payload Control (TRAMPAC)*, *RH TRU 72B Safety Analysis Report (SAR)*, *TRUPACT-II and TRUPACT-III Certification of Compliance*, and *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*. The audit team determined that the procedures/documents were effectively implemented.

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Based on the results of the CBFO Audits/Surveillances A-10-11, A-11-01, A-10-25, S-10-23, S-11-10, A-11-18, and conditions and limitations provided by the New Mexico Environment Department (NMED), and U.S. Environmental Protection Agency (EPA), the CBFO is authorizing SRS-CCP to include the TRUPACT-III Transportation Operations into their certified program and continued authority at the SRS for the characterization, certification, and transportation activities for CH solids (S3000), CH soils/gravel (S4000), CH debris (S5000), RH solids (S3000), and RH debris (S5000), as identified in Table 1, Page 4 of this memorandum.

TRU waste characterization, certification, or transportation using significantly revised or new processes, procedures, or systems must be evaluated by the 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 equipment certified for CCP,
- *Attachment 3* contains the list of CCP procedures for CCP, and
- *Attachment 4* describes specific CCP waste characterization process elements that must be reported. These process elements are identified as Tier 1 changes and Tier 2 changes.

The SRS-CCP shall not ship for disposal at WIPP any wastes affected by a Tier 1 process element change without prior CBFO approval, and SRS-CCP shall report Tier 2 changes to CBFO on a quarterly basis.

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



Edward Ziemianski  
Acting Manager

Attachments (4)

D. Moody/M. F. Sharif

-3-

JUL 27 2011

cc: w/attachments

J. R. Stroble, CBFO	*ED
D. Garcia, CBFO	ED
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T. Peake, EPA	ED
R. Joglekar, EPA	ED
E. Feltcorn, EPA	ED
J. Kieling, NMED	ED
S. Holmes, NMED	ED
D. Ploetz, WTS	ED
M. Sensibaugh, WTS	ED
M. Percy, WTS	ED
I. Quintana, WTS	ED
B. Schrock, WTS	ED
C. Kirkes, WTS	ED
J. Harvill, WTS	ED
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R. Allen, CTAC	ED
P. Martinez, CTAC	ED
P.Y. Martinez, CTAC	ED
D. Sellmer, CTAC	ED
P. Gilbert, LANL	ED
G. Lyshik, LANL	ED
S. Percy, SM Stoller	ED
WIPP Operating Record	ED
CBFO M&RC	

\*ED denotes electronic distribution

**Table 1  
CH & RH Waste Characterization Processes at SRS**

Characterization Process	CH S3000 Solids		CH S4000 Soils/gravel		CH S5000 Debris		RH S3000 Solids (SR-BCLDP.001.001, 5 containers and SR-BCLDP.002 1 container) SR-BCLDP.003, 7 container)		RH S5000 Debris (SR-RL-BCLDP.001, and SR-BCLDP.001.002 4 containers, SR-BCLDP.004.002, 5 containers, and SR-BCLDP.004.003, 2 containers) <sup>3</sup> , and SR-RL-BCLDP.002 one container) <sup>4</sup>	
	Newly generated	Retrievably-stored	Newly generated	Retrievably-stored	Newly generated	Retrievably-stored	Newly generated	Retrievably-stored	Newly generated	Retrievably- Stored
Acceptable Knowledge (AK)	N/A	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	APPROVED	N/A	APPROVED
Data Validation & Verification (V&V)	N/A	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	APPROVED	N/A	APPROVED
Headspace Gas Sampling (SUMMA) <sup>1</sup>	N/A	N/A	N/A	N/A	APPROVED	APPROVED	N/A	N/A	N/A	N/A <sup>1</sup>
Load Management	N/A	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	N/A	N/A	N/A
Non-destructive assay (NDA)	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	N/A	N/A	N/A
Dose-to-Curie (DTC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	APPROVED	N/A	APPROVED
Real-time Radiography (RTR)	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	N/A	N/A	N/A
Solids Sampling and Analysis <sup>2</sup>	APPROVED	APPROVED	APPROVED	APPROVED	N/A	N/A	N/A	N/A <sup>1</sup>	N/A	N/A
Visual Examination (VE)	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	APPROVED	N/A	APPROVED
WIPP Waste Information System (WWIS)	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	APPROVED	N/A	APPROVED	N/A	APPROVED

<sup>1</sup> For CH waste, SUMMA sampling is performed by CCP, analysis is performed by the Idaho National Laboratory, which is approved under a separate certification. For RH waste, NMED granted exemption by approving an AK Sufficiency Determination on March 13, 2009.

<sup>2</sup> The soils/gravel waste stream for analysis is performed by the Idaho National Laboratory, which is approved under a separate certification.

<sup>3</sup> Received EPA approval of a Tier 1 change request to include the 6 remaining RH BCL waste streams stored at SRS. CCP is currently approved by CBFO for characterization of RH S3000 Solids Waste Stream SR-BCLDP.001.001 and SR-BCLDP.002; and RH S5000 Debris Waste Stream SR-RL-BCLDP.001, SR-BCLDP.001.002, SR-BCLDP.004.002, and SR-BCLDP.004.003.

<sup>4</sup> Received EPA approval of a Tier 1 change request to include the one remaining RH BCL drum (SR-RL-BCLDP.002 Waste Stream) stored at SRS.

SRS CCP CH & RH Certified Equipment and Process List					
WIPP WWIS #	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
<b>Non-destructive Assay</b>					
1NABC1	NABC – (SR05/SRN5)	<p>Nondestructive Assay Box Counter – 55-gallon drums, standard waste boxes (SVBs), and standard large box 2s (SLB2s)</p> <p>Method identified in CCP-TP-189 and CCP-TP-191</p>	<p>Gamma</p> <ul style="list-style-type: none"> <li>• Two Co-60 Transmission Sources</li> <li>• Two NaI Gamma Detectors for transmission measurements</li> <li>• Four Broad Energy Germanium (BEGe) Detectors for gamma emission measurements</li> <li>• Six Digital Signal Processors</li> </ul> <p>Neutron</p> <ul style="list-style-type: none"> <li>• 320 He-3 Tubes in High Density Polyethylene Liner</li> <li>• Cf-252 Add-A-Source Correction</li> </ul>	<ul style="list-style-type: none"> <li>• NDA-2000</li> <li>• Genie-2000</li> </ul>	<p>The NABC has two modalities of operation: gamma and neutron. Therefore two sets of calibration documents exist. For the gamma modality the calibration of the Efficiency Curve Calibration Using ASM Standard C1133/C1133-10 for the Box Segmented Gamma System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. Based on this document, the calibration limits are based on the performance capabilities and limitations of the gamma counting unit.</p> <p>The determination of the TMU for the NABC is similarly documented for the gamma modality in A40972, "Savannah River Box Gamma Box Counter Total Measurement Uncertainty Report for Alternatives for Non-Destructive Assay (NDA) of Large Containers to Allow Shipping in TRUPACT-III without Resizing and/or Repackaging," dated October 15, 2007, and for the neutron modality in A41309, "Savannah River Neutron Box Counter Total Measurement Uncertainty Report for Alternatives for Non-Destructive Assay (NDA) of Large Containers to Allow Shipping in TRUPACT-III without Resizing and/or Repackaging," dated October 15, 2007.</p>

SRS CCP CH & RH Certified Equipment and Process List					
WIPP WWIS #	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
<b>Non-destructive Examination</b>					
1RR3	RTR-15 (owned by SRS)	Real-time Radiography Built by Marietta X-Ray  Method identified in CCP-TP-053	<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 including x-ray tube, image intensifier, and video camera</li> <li>• Video/audio recording equipment</li> <li>• Mobile platform</li> </ul>	N/A	N/A
1RR4	RTR-4	Real-time Radiography  Method identified in CCP-TP-053	<ul style="list-style-type: none"> <li>• Shielded x-ray enclosure with a rear container loading door and manually opened personnel door</li> <li>• Conveyer cart</li> <li>• Drum manipulation equipment</li> <li>• X-ray imaging system including x-ray tube, image intensifier, and video camera</li> <li>• Video/audio recording equipment</li> <li>• Mobile platform</li> </ul>	N/A	N/A
1LCNDE	LCNDE	Real-time Radiography  Method identified in CCP-TP-053	<ul style="list-style-type: none"> <li>• X-ray source - Linatron 3 MeV linear accelerator</li> <li>• Linear Diode Array (LDA) - X-ray imaging system which is used to produce a single still image of the container.</li> <li>• Area Detector Array (ADA) - X-ray imaging system which provides real time radioscopic images of the container.</li> <li>• Imaging and control software.</li> <li>• Container manipulation equipment</li> <li>• Video/audio recording equipment</li> </ul>	N/A	N/A

<b>SRS CCP CH &amp; RH Certified Equipment and Process List</b>					
<b>WIPP WWIS #</b>	<b>Site Equipment #</b>	<b>Description</b>	<b>Components</b>	<b>Software</b>	<b>NDA Calibrated Range, Operating Range and TMU</b>
<b>Visual Examination</b>					
1RHVE1	Visual Examination	Visual Examination Technique Method Identified in CCP-TP-500	N/A	N/A	N/A
VISUAL	Visual Examination	Visual Examination  Method identified in CCP-TP-113	N/A	N/A	N/A
<b>Dose-to-Curie</b>					
1DTC1	Dose-to-Curie	Radiological characterization  Method identified in CCP-TP-504	As identified in CCP-TP-504	As identified in CCP-TP-504	N/A
<b>Headspace Gas</b>					
N/A	HSG	SUMMA Sampling process on selected waste containers from waste stream lots.	As identified in CCP-TP-093	As identified in CCP-TP-093	N/A

<b>List of Deactivated Equipment</b>			
<b>WIPP #</b>	<b>Site Equipment #</b>	<b>Site Description</b>	<b>Date Deactivated</b>
1IP1	MCS IPAN/GEA – MC-01, Group MC-N1	Mobile Characterization Systems (MCS) Imaging Passive-Active Neutron/Gamma Energy Analysis (IPAN/GEA) [Built by BNFL] – 55 gallon drums	May 2006
1HG1	NUCFIL HSG DVS2	NucFil headspace gas system DVS2 – VOCs and hydrogen and methane analysis	March 2008
1IQ1	IQ3 - SR03/SR-G2	Canberra Mobile Qualitative and Quantitative Drum Counter with Isotopics (IQ3) Method identified in CCP-TP-047	July 2009
1SG1	MCS SGS – (SR04/SRG3)	Mobile Characterization Systems (MCS) Segmented Gamma Scanner (SGS) – 55 gallon drums	July 2010



<b>CCP SRS Certified Procedures</b>		
#	Procedure #	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-003	CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)
4.	CCP-PO-004	CCP/SRS Interface Document
5.	CCP-PO-005	CCP Conduct of Operations
6.	CCP-PO-006	CCP Conduct of Operations Matrix
7.	CCP-PO-008	CCP Quality Assurance Interface with the WTS Quality Assurance Program
8.	CCP-PO-505	CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)
9.	CCP-QP-001	CCP Graded Approach
10.	CCP-QP-002	CCP Training and Qualification Plan
11.	CCP-QP-004	CCP Corrective Action Management
12.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
13.	CCP-QP-006	CCP Corrective Action Reporting and Control
14.	CCP-QP-008	CCP Records Management
15.	CCP-QP-010	CCP Document Preparation, Approval, and Control
16.	CCP-QP-011	CCP Laboratory Logbooks
17.	CCP-QP-014	CCP Quality Assurance Trend Analysis and Reporting
18.	CCP-QP-015	CCP Procurement
19.	CCP-QP-016	CCP Control of Measuring and Testing Equipment
20.	CCP-QP-017	CCP Identification and Control of Items
21.	CCP-QP-018	CCP Management Assessment
22.	CCP-QP-019	CCP Quality Assurance Reporting to Management
23.	CCP-QP-021	CCP Surveillance Program
24.	CCP-QP-022	CCP Software Quality Assurance Plan
25.	CCP-QP-023	CCP Handling, Storage and Shipping
26.	CCP-QP-025	CCP Lessons Learned Program Management Control Procedure
27.	CCP-QP-026	CCP Inspection Control
28.	CCP-QP-027	CCP Test Control
29.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
30.	CCP-QP-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
31.	CCP-QP-036	CCP Qualification of Acceptable Knowledge for Remote-Handled Transuranic Waste Through a Quality Assurance Equivalency Demonstration
32.	CCP-TP-001	CCP Project Level Data Validation and Verification
33.	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
34.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization
35.	CCP-TP-005	CCP Acceptable Knowledge Documentation
36.	CCP-TP-028	CCP Radiographic Test and Training Drum Construction

<b>CCP SRS Certified Procedures</b>		
#	Procedure #	Procedure Title
37.	CCP-TP-030	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
38.	CCP-TP-033	CCP Shipping of CH TRU Waste
39.	CCP-TP-035	CCP Container Management
40.	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
41.	CCP-TP-054	CCP Adjustable Center of Gravity Lift Fixture Preoperational Checks and Shutdown
42.	CCP-TP-055	CCP Varian Porta-Test Leak Detector Operations
43.	CCP-TP-058	CCP HSG Performance Demonstration Plan
44.	CCP-TP-058	CCP NDA Performance Demonstration Plan
45.	CCP-TP-066	CCP Radiography Screening Procedure for Prohibited Items
46.	CCP-TP-074	CCP Large Container Non-Destructive Examination (LCNDE) Operating Procedure
47.	CCP-TP-082	CCP Preparing and Handling Waste Containers for Headspace Gas Sampling
48.	CCP-TP-083	CCP Gas Generation Testing
49.	CCP-TP-086	CCP CH Packaging Payload Assembly
50.	CCP-TP-087	CCP Scale Operations
51.	CCP-TP-093	CCP Sampling of TRU Waste Containers
52.	CCP-TP-098	CCP Installation of the NucFil HSG Sample Port
53.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation
54.	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination
55.	CCP-TP-120	CCP Container Management
56.	CCP-TP-136	CCP Standardized Prohibited Item Remediation
57.	CCP-TP-138	CCP Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure
58.	CCP-TP-139	CCP In Situ Object Counting System Nondestructive Assay Operating Procedure
59.	CCP-TP-145	CCP RTR #4 Operating Procedure
60.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
61.	CCP-TP-163	CCP Evaluation of Waste Packaging Records for Visual Examination of Records
62.	CCP-TP-180	CCP Analytical Sample Management
63.	CCP-TP-189	CCP Box Segmented Gamma System (BSGS) Operating Procedure
64.	CCP-TP-190	CCP Box Segmented Gamma System (BSGS) Calibration Procedure
65.	CCP-TP-191	CCP Box Neutron Assay System (BNAS) Operating Procedure
66.	CCP-TP-192	CCP Box Neutron Assay System (BNAS) Calibration Procedure
67.	CCP-TP-193	CCP Data Reviewing, Validating, and Reporting Procedure for the Nondestructive Assay Box Counters
68.	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
69.	CCP-TP-504	CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste
70.	CCP-TP-505	CCP Removable Lid Canister Loading
71.	CCP-TP-506	CCP Preparation of the RH TRU Waste AK Characterization Reconciliation Report

<b>CCP SRS Certified Procedures</b>		
<b>#</b>	<b>Procedure #</b>	<b>Procedure Title</b>
72.	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic Waste
73.	CCP-TP-509	CCP Remote-Handled Transuranic Container Tracking
74.	CCP-TP-530	CCP RH TRU Waste Certification and WMIS/WDS Data Entry

<b>CCP SRS Deactivated Procedures</b>			
#	Procedure #	Procedure Title	Deactivation Date
1.	CCP-QP-007	CCP Document Control	December 2001
2.	CCP-QP-009	CCP Work Control Process	October 2006
3.	CCP-QP-012	CCP Indoctrination Plan	March 2002
4.	CCP-QP-013	CCP QAPD Matrix	May 2003
5.	CCP-QP-020	CCP Independent Assessments	September 2003
6.	CCP-QP-024	CCP Certification of CCP Audit Personnel	September 2003
7.	CCP-TP-007	CCP Single Sample Manifold Headspace Gas Sampling and Analysis Procedure	January 2008
8.	CCP-TP-009	CCP Single Sample Manifold Data Handling Procedure	January 2008
9.	CCP-TP-011	CCP Radiography Inspection Operating Procedure	May 2007
10.	CCP-TP-022	CCP Mobile IPAN/GEA Maintenance Procedure	November 2007
11.	CCP-TP-023	CCP Mobile IPAN/GEA System Mobilization, Power Up, and Demobilization Procedure	November 2007
12.	CCP-TP-024	CCP Mobile IPAN/GEA Operating and Data Generation Level Validation Procedure	November 2007
13.	CCP-TP-025	CCP Mobile IPAN/GEA Expert Analysis Procedure	November 2007
14.	CCP-TP-026	CCP Mobile IPAN/GEA Calibration Procedure	May 2007
15.	CCP-TP-029	CCP Single Sample Manifold Headspace Gas Sampling and Analysis Methods and Equipment Calibration	January 2008
16.	CCP-TP-032	CCP Single Sample Manifold Data Validation Procedure	January 2008
17.	CCP-TP-046	CCP Mobile IQ3 System Calibration Procedure	July 2009
18.	CCP-TP-047	CCP Mobile IQ3 Gamma Scanner Operation	July 2009
19.	CCP-TP-048	CCP-TP-048, CCP Mobile IQ3 System Data Reviewing, Validating, and Reporting Procedure	July 2009
20.	CCP-TP-050	CCP Mobile Segmented Gamma Scanner Calibration Procedure	December 2010
21.	CCP-TP-051	CCP Mobile Segmented Gamma Scanner Operation	December 2010
22.	CCP-TP-052	CCP Mobile Segmented Gamma Scanner Data Reviewing, Validating and Reporting	December 2010
23.	CCP-TP-057	CCP Project Level Data Validation and Verification for Headspace Gas Sampling and Analysis	September 2002
24.	CCP-TP-084	CCP Removal of Prohibited Items Within Transuranic Visual Examination Facility	May 2004
25.	CCP-TP-085	CCP TRU Visual Examination Facility Operations	November 2005
26.	CCP-TP-088	CCP Disposal Program Data Generation Level Review for Visual Examination	November 2005
27.	CCP-TP-089	CCP Mobile Gas Generation Testing Sampling System (MGSS) Sampling Operation	October 2009
28.	CCP-TP-092	CCP Mobile Gas Generation Testing Sampling System (MGSS) Data Calculation	October 2009
29.	CCP-TP-094	GGTP Drum Screening and Batching	October 2009
30.	CCP-TP-160	CCP Random Selection of Containers for Headspace Gas Sampling and Analysis	June 2009
31.	CCP-TP-161	CCP Random Selection of Containers for Solids Sampling and Analysis	June 2009

**EPA Tiering of Contact-Handled Transuranic Waste Characterization Processes Implemented by SRS CCP**

Waste Characterization Process Elements	SRS-CCP Waste Characterization T1 Changes	SRS-CCP Waste Characterization T2 Changes <sup>a</sup>
Acceptable Knowledge and Load Management	Implementation of load management for the S3000 Summary Category Group <sup>d</sup>	The elements listed as T2 changes below apply to all approved SRS-CCP CH TRU waste streams and waste summary category groups.  Notification to EPA upon completion of AK accuracy reports and, upon completion of new versions or updates/substantive changes <sup>b</sup> of the following:  <ul style="list-style-type: none"> <li>- AK-NDA memoranda</li> <li>- Site AK procedure CCP-TP-005</li> <li>- AK accuracy reports</li> <li>- AK-AK and AK-NDA/NDE Discrepancy Resolution Reports</li> <li>- Attachments 4 and 6 and associated memoranda</li> <li>- WSPFs and AK summaries and related attachments for all new waste streams, including change notices</li> <li>- "Add Container" memoranda</li> </ul>
Non-Destructive Assay	New equipment or physical modifications to approved equipment <sup>c</sup>  Extension or changes to approved calibration range for approved equipment	Notification to EPA upon completion of changes to software for approved equipment, operating range(s), and site procedures that require CBFO approval.
Real-Time Radiography	N/A	Notification to EPA upon the following:  <ul style="list-style-type: none"> <li>- Implementation of new RTR equipment or substantive changes<sup>b</sup> to approved RTR equipment</li> <li>- Completion of changes to site RTR procedures requiring CBFO approvals</li> </ul>
Visual Examination and Visual Examination Technique	Changes in vendor performing VE and/or VET	Notification to EPA upon completion of changes to site VE/VET procedures that require CBFO approval.
WIPP Waste Information System	N/A	Notification to EPA upon completion of changes to WWIS procedure(s) requiring CBFO approval and other changes including algorithms specific to load management.

<sup>a</sup> T2 changes have been updated from those presented in the baseline inspection report, which addressed only the WSPF and procedural changes, to include new AK requirements as a result of this inspection and other EPA baseline approvals to ensure consistent reporting requirements. SRS-CCP will report all T2 changes to EPA at the end of each fiscal quarter.

<sup>b</sup> "Substantive changes" are changes with the potential to impact the site's waste characterization activities or documentation thereof, excluding changes that are solely related to ESH, nuclear safety, or RCRA, or that are editorial in nature.

<sup>c</sup> 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.

<sup>d</sup> New T1 change specific to the S3000 SCG as discussed in this report.

**EPA Tiering of Remote-Handled Transuranic Waste Characterization Processes Implemented by SRS CCP**

Waste Characterization Process Elements	SRS-CCP RH Waste Characterization T1 Changes	SRS-CCP RH Waste Characterization T2 Changes
Acceptable Knowledge (AK)	Yes <sup>1</sup>	N/A
Radiological Characterization using Dose-to-Curie (DTC)	Yes <sup>1</sup>	N/A
Visual Examination (VE)	Yes <sup>1</sup>	N/A
Real-Time Radiography (RTR)	Yes <sup>1</sup>	N/A
WWIS	Yes <sup>1</sup>	N/A
(From Page 52 of the SRS RH BCLDP Inspection Report Final Approval, DOCKET # A-98-49; II-A4-104)		
<p>The wastes to which this approval applies are discussed in this report and were generated at the BCLDP; the fact that they are stored at SRS has no bearing on characterization activities performed on any other CH or RH TRU materials at SRS or any other DOE site. This report does not list any specific T1 or T2 designations relative to these 87 waste liners and the WC components inspected and approved by EPA at this time. However, should DOE identify additional containers of RH TRU wastes (e.g., solids or soil/gravel) associated with the D&amp;D of the Building JN-1 HCL at the Jefferson North Facility as being eligible for WIPP disposal apart from the 87 liners that are discussed in this report, EPA notification and approval would be necessary as a T1 change. This report does not list specific T1 or Tier 2 (T2) designations relative to these 87 drum liners containing RH TRU debris waste from BCLDP and the WC components approved at this time. SRS-CCP, however, must provide to EPA a copy of the WWIS controlled spreadsheet showing the manual data entries that were downloaded from CCP-AK-SRS-501 upon completion as a one-time T2 change.</p>		
(From Page 6 of the SRS RH Docket No: A-98-49; II-A4-149)		
<p><sup>1</sup> The only additional BCL waste containers eligible for WIPP disposal are the 20 liners of debris waste stored at the Department of Energy's (DOE's) Hanford site. Characterization of these 20 liners must be approved by EPA as a T1 change prior to their emplacement at the WIPP facility.</p>		

**RECOMMENDATION**

The recommendation to the CBFO Manager is for CCP at SRS to include the for Audit A-11-18, CCP TRUPACT-III into their certified program and to continue to have authority for the characterization, certification, and transportation CH solids (S3000), CH soils/gravel (S4000), CH debris (S5000), and RH solids (S3000), RH debris (S5000) at the SRS . Attachments 2 and 3 list the systems and procedures that constitute the bounds of this authority. Attachment 4 is the CH and RH Tiering of TRU Waste Characterization Processes Implemented by the CCP at SRS.

**CONCURRENCE**

  
\_\_\_\_\_  
Randy Unger, Director  
Office of Quality Assurance

7-21-11  
Date

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

7-21-11  
Date

**CENTRAL CHARACTERIZATION PROJECT DEPLOYMENT AT  
SAVANNAH RIVER SITE  
CERTIFICATION PROGRAM STATUS**

The CBFO Director of the Office of the National TRU Program and the CBFO Director of Quality Assurance have evaluated the documentation supporting the compliance of the Central Characterization Project (CCP) TRU waste program deployed at the Savannah River Site (SRS). Attachments 2 and 3 provide complete lists of certified processes, procedures, documents, and systems deployed at the SRS-CCP. Attachment 4 is the contact-handled (CH) and remote-handled (RH) Tiering of TRU Waste Characterization Processes Implemented by the CCP at SRS.

**STATUS**

- All program elements remain complete.
- The following site documents demonstrate how the CCP complies with the CBFO requirements from Audit A-11-01.
  - **QAPJP – CCP-PO-001, Revision 19 - CCP Transuranic Waste Characterization Quality Assurance Project Plan (Approved December 9, 2010 – CBFO:NTP:CF:GS:10-2048:UFC 5900.00).**
  - **WCP - CCP-PO-002, Revision 25 - CCP Transuranic Waste Certification Plan (Approved December 20, 2010 – CBFO:NTP:NC:GS:10-2076:UFC 5900.00). QAP - Section 4.0 of CCP-PO-002.**
  - **CCP TRAMPAC – CCP-PO-003, Revision 12, CCP Transuranic Authorized Method for Payload Control (Approved December 17, 2010 - CBFO:NTP:CF:GS:10-2055:UFC 5900.00).**
  - **CCP RH-TRAMPAC – CCP-PO-505, Revision 0, CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (Approved September 20, 2006 - CBFO:NTP:CF:GS:06-1355:UFC 5900.00).**
- Certified Systems - see Attachment 2 for the complete list of certified systems used by the CCP at the SRS.
- Standard operating procedures - see Attachment 3 for the complete list of certified procedures used by the CCP at the SRS.
- Tiering of the CH & RH TRU Waste Characterization Processes – see Attachment 4 for the implementation by CCP at SRS (based on EPA Baseline Inspections)



## CCP audited and current performance demonstration programs (PDPs):

- **NDA PDP – Cycle B9A approval** for radioassay of WIPP wastes contained in the TRU SWB and TRU *large box* using the NABC (SR05/SRN2).  
Memo CBFO:NTP:MR:GS:09-2037:UFC 5822.00 dated December 3, 2009
- **NDA PDP – Cycle 17A approval** for analysis of TRU waste *drums* using the NABC (SR05/SRN2).  
Memo CBFO: NTP:MRB:GS:10-1429:UFC 5822.00 dated June 29, 2010
- **HSG PDP (CCP-INL) –** For CH waste, SUMMA sampling is performed by CCP, analysis is performed by the Idaho National Laboratory, which is approved under a separate certification. For RH waste, NMED granted exemption by approving an AK Cycle B9A approved for radioassay in the TRU standard waste box using the NABC (SR05/SRN2).  
Memo CBFO:NTP:MRB:GS:10-0864:UFC 5822.00 dated May 27, 2010
- CBFO conducted the CH and RH Recertification Audit A-11-01 of the SRS CCP on October 26-28, 2010.
  - CAR 11-007 was issued on November 3, 2010.
  - CAR 11007 was closed on January 25, 2011.
  - Interim Audit Report was issued on November 18, 2010.
  - Final Audit Report was issued on February 1, 2011.
  - NMED issued their approval on March 3, 2011.
  - EPA issued concurrence on the draft CBFO recertification memo on March 31, 2011.
- CBFO conducted a Quality Assurance Program Audit A-10-11 on March 2-4, 2010.
  - Audit Report was issued on March 16, 2010.
- CBFO conducted Surveillance S-10-23 VE of CH S5000 on March 31, 2010.
  - Surveillance Report was issued on May 11, 2010
- CBFO conducted CH and RH Transportation Audit A-10-25 for all sites on September 21-23, 2010.
  - Audit Report was issued on October 5, 2010.
- CBFO conducted Surveillance S-11-10 LCNDE on November 30-December 1, 2010.
  - CAR 11-014 and CAR 10-015 were issued on December 7, 2010.
  - CAR 11-014 was closed on February 10, 2011.
  - CAR 11-015 was closed on March 11, 2011.
  - Surveillance Report was issued on December 10, 2010.

- **CBFO requested a Tier 1 change to the SRS-CCP Baseline on January 25, 2011 allowing the use of ASTM standard efficiency calibration method for the NABC.**
  - EPA gave their approval on May 31, 2011, (Docket No: A-98-49; II-A4-148).
  - EPA gave their concurrence on the draft expansion to the certification on June 20, 2011.
  
- **CBFO requested a Tier 1 change to the SRS-CCP Baseline on March 30, 2011 to add SR-RL-BCLDP.002 Waste Stream.**
  - EPA gave their approval on June 8, 2011, (Docket No: A-98-49; II-A4-149).
  
- **CBFO conducted CCP TRUPACT-III Transportation Operations Audit A-11-18 on May 24-26, 2011.**
  - CAR 11-039 was issued on June 3, 2011.
  - CAR 11-039 was closed on July 7, 2011.
  - Audit Report was issued on June 20, 2011.