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United States Government

Department of Energy

memorandum

NOV - 2 2015

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: NOV - 2 2015

REPLY TO ATTN OF: CBFO:TSTD:JRS:GL:15-1108:UFC 5900.00

SUBJECT: Expansion to the Savannah River Site - Central Characterization Program Recertification Audit A-14-04 to include the EPA Tier 1 Approval to add to the approved RH TRU Debris Waste Stream SR-RH-SWD.01 currently made up of Waste Container No. SR607484.

TO: Jack Craig, Manager, U.S. Department of Energy, Savannah River Site
Philip Breidenbach, President and Project Manager, Nuclear Waste Partnership LLC

The Carlsbad Field Office (CBFO) is expanding the current recertification memorandum CBFO:TSTD:JRS:PG:15-0943:UFC 5900.00 dated April 30, 2015 of the Central Characterization Program (CCP) TRU waste program deployed at the Savannah River Site (SRS) (here in after referred to SRS-CCP) to reflect the U.S. Environmental Protection Agency (EPA) Tier 1 approval to add to the approved RH Transuranic (TRU) Debris waste stream SR-RH-SWD.01 currently made up of Waste Container No. SR607484 characterized by the Central Characterization Project (CCP) at the Savannah River Site (SRS). The CBFO received the EPA approval on August 3, 2015, (DOCKET NO: A-98-49; II-A4-197).

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 this site;
- *Attachment 3* contains the list of the 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 SRS-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.

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If you have any questions, please contact Mr. J.R. Stroble, Director, CBFO TRU Sites and Transportation Division, at (575) 234-7313.

for Todd A. Shrader

Todd A. Shrader, Manager
Carlsbad Field Office

Attachments (4)

cc: w/attachments

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G. Lyshik, LANL-CO	ED
W. Weyerman, LANL-CO	ED
S. Pearcy, TFE, Inc.	ED
WIPP Operating Record	ED
CBFO M&RC	

*ED denotes electronic distribution

CBFO:TSTD:JRS:GL:15-1108:UFC 5900.00

Table 1 – SRS-CCP CH and RH Certified Waste Characterization Processes

Characterization Process[1]	CH S3000 Solids		CH S4000 Soils/Gravel		CH S5000 Debris		RH S5000 Debris Waste Stream * 2, 3, 4, & 6, 7,10	
	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
Data Validation & Verification (V&V)	N/A	Approved	Approved	Approved	Approved	Approved	N/A	Approved
Load Management	N/A	Approved	Approved	Approved	Approved	Approved	N/A	N/A
Non-Destructive Assay (NDA)[5]	Approved	Approved	Approved	Approved	Approved	Approved	N/A	N/A
Dose-to-Curie (DTC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Approved
RH Radiological Characterization of Sealed Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Approved[6]
Real-Time Radiography (RTR)[8]	Approved	Approved	Approved	Approved	Approved	Approved	N/A	Approved
Visual Examination (VE)[9]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A[6]
WIPP Data System (WDS)	Approved	Approved	Approved	Approved	Approved	Approved	N/A	Approved

[1]Characterization Processes in this Table may not be completely listed in Attachment 2.

[2] EPA Baseline Approval of the waste characterization program implemented to characterize RH debris (S5000) waste from the Waste Stream SR-RH-FBL.01 dated April 2012, DOCKET NO: A-98-49; II-A4-161.

[3] EPA Approval of the Tier 1 change to include RH debris Waste Stream SR-RH-235F.01 dated February 11, 2013, DOCKET NO: A-98-49; II-A4-170.

[4] EPA Approval of the Tier 1 change to include RH debris Waste Stream SR-RH-221H.01 dated August 20, 2013, DOCKET NO: A-98-49; II-A4-177.

[5] EPA Approval of the Tier 1 change to use NABC Five-Foot Setback Configuration for CH waste in SLB2s dated March 24, 2014, DOCKET NO: A-98-49; II-A4-182.[6] EPA Approval of the Tier 1 change to add the 3 sealed source containers of the RH Waste Stream SR-RH-SDD.01 at the SRS dated May 22, 2014, DOCKET NO: A-98-49; II-A4-184. For this waste stream, EPA is approving AK/VE for radiological characterization using simple mass-based isotopic relationships and then applying the OSRP database for non-plutonium radionuclides as an alternative characterization method from that used in CCP-TP-504, WDS Method ID Number 16311. RH VE is only approved for this waste stream.

[7] EPA approval of the Tier 1 change to include the one 55-gallon drum No. BC0152 containing RH debris waste from the alpha gamma hot cell in Building JN-1 at the Battelle Columbus Laboratory (BCL) to be added to the existing approved RH waste stream SR-BCLDP.003.

[8] EPA Continued Compliance Inspection report (DOCKET NO. A-98-49; II-A4-195) which found the RTR process to be adequate was submitted to the CBFO. Submission to EPA of a list of all RTR personnel who performed work during the previous quarter is a new RTR T2 change (See Attachment 4 of this memorandum). Specifically, the list must include all operators and ITRs and must be submitted to the EPA.

[9]EPA Continued Compliance Inspection report (DOCKET NO: A-98-49; II-A4-195) references that SRS-CCP is not currently prepared to use or demonstrate the CH VE process.

[10]EPA approval of the Tier 1 change to add the RH TRU Debris Waste Stream SR-RH-SWD.01 currently made up of Waste Container No. SR607484 dated August 3, 2015, (DOCKET NO: A-98-49; II-A4-197).

*EPA approved the Baseline and Tier 1 change requests for Remote-Handled (RH) Battelle Columbus Laboratory (BCL) Waste Streams for SR-BCLDP.001.001, SR-BCLDP.002, SR-RL-BCLDP.001, SR-RL-BCLDP.002, SR-BCLDP.003, SR-BCLDP.001.002, SR-BCLDP.004.002, SR-BCLDP.004.003. The last BCL shipment from SRS was shipped on July 28, 2011 and arrived at the WIPP facility on July 29, 2011. An additional 20 BCL drums remain at the Hanford Site which will be processed as a Tier 1 to Waste Streams SR-RL-BCLDP.001, DOCKET NO: A-98-49; II-A4-149.

CENTRAL CHARACTERIZATION PROGRAM DEPLOYMENT AT SAVANNAH RIVER SITE CERTIFICATION PROGRAM STATUS

The CBFO Director of the TRU Sites and Transportation Division and the CBFO Director of Quality Assurance Division have evaluated the documentation supporting the compliance of the Central Characterization Program (CCP) TRU waste program deployed at the Savannah River Site (SRS) (hereinafter referred as SRS-CCP).

STATUS

- All program elements remain complete.

- The following site program documents are current and comply with CBFO requirements*:

- **CCP-PO-001, Revision 21,** *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
  CBFO:NTP:JRS:PG:13-0487:UFC 5900.00 dated April 17, 2013;

- **CCP-PO-002, Revision 27,** *CCP Transuranic Waste Certification Plan*
  Section 4.0 of CCP-PO-002
  CBFO:NTP:JRS:PG:13-0593:UFC 5900.00 dated May 31, 2013;

- **CCP-PO-003, Revision 13**, *CCP Transuranic Authorized Method for Payload Control*
  CBFO:NTP:JRS:GL:13-0671:UFC 5900.00 dated July 29, 2013;

- **CCP-PO-505, Revision 3**, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control*
  CBFO:NTP:JRS:GL:14-1860:UFC 5900.00 dated March 5, 2014.

  ***Note that the program documents listed above are the current revision and may not be the revision that was audited.**

- 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 SRS.

- Standard Operating Procedures - see Attachment 3 for the complete list of certified procedures/documents 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 participated in the following performance demonstration programs (PDPs)*:
  - **NDA PDP – Box Cycle B14A approval** for radioassay of WIPP wastes contained in TRU SWBs using the NABC (SR05/SRN2).
    Memo CBFO:TSTD:NC:LC:14-2019:UFC 5900.00 dated October 30, 2014.

  - **NDA PDP – Cycle 21A approval** for radioassay of WIPP wastes contained in 55-gallon waste drums using the NABC (SR05/SRN2).
    Memo CBFO:NTP:NC:LEC:14-1939:UFC 5900.00 dated June 24, 2014.

  ***Note that the PDP cycles listed above are the current revision and may not be the revision that was audited.**

- CBFO conducted the CH and RH Recertification Audit A-14-04 of the SRS-CCP on November 13-15, 2013.
  - CAR 14-006 was issued on November 26, 2013.
  - CAR 14-006 was closed on January 6, 2014.
  - Interim Audit Report was issued on December 13, 2013.
  - The Final Audit Report was issued to NMED on March 3, 2014.
  - The NMED approval was issued on April 18, 2014.
  - The EPA provided concurrence on September 23, 2014.

- The CBFO conducted Audit A-14-10 of the NWP CCP Quality Assurance Program on March 25-27, 2014.
  - CARs 14-030, 14-031, 14-032, 14-033, 14-034, 14-35 and 14-036 were issued on April 7, 2014.
  - CAR 14-030 was closed on June 10, 2014.
  - CAR 14-031 was closed on June 24, 2014.
  - CAR 14-032 was closed on August 14, 2014.
  - CAR 14-033 was closed on August 14, 2014.
  - CAR 14-034 was closed on May 28, 2014.
  - CAR 14-035 was closed on May 15, 2014.
  - CAR 14-036 was closed on June 2, 2014.
  - The Audit Report was issued on April 29, 2014.

- The CBFO conducted Audit A-15-07 of the technical and QA processes related to transportation activities governed by the CCP on January 20-22, 2015.
  - The Audit Report was issued on February 18, 2015.

- The CBFO requested a Tier 1 change request to add to the already approved RH TRU Debris Waste Stream SR-RH-SWD.01 currently made up of Waste Container No. SR607484.
  - The EPA issued approval on August 3, 2015 (Docket No: A-98-49;II-A4-197)
- EPA issued concurrence on the draft recertification memo to add to the approved RH TRU Debris Waste Stream SR-RH-SWD.01 currently made up of waste Container No. SR607484 on October 1, 2015.

RECOMMENDATION

The recommendation to the CBFO Manager is to include the EPA Tier 1 Approval to add to the approved RH TRU Debris Waste Stream SR-RH-SWD.01 currently made up of Waste Container No. SR607484 characterized by the CCP at SRS and authorize continued authority for TRU waste characterization, certification, and transportation activities of CH solids (S3000), CH soils/gravel (S4000), CH debris (S5000), and RH debris (S5000) for the CCP at the SRS and Attachments 2 and 3 that list the systems and procedures and Attachment 4 the CH and RH Tiering of TRU Waste Characterization Processes that constitute the bounds of this authority implemented by the CCP at SRS.

CONCURRENCE

J.R. Stroble 9-24-15

J.R. Stroble, Director — Date
CBFO TRU Sites and Transportation Division

D. Shelley FOR 9-28-15

Michael R. Brown, Director — Date
CBFO Quality Assurance Division

CENTRAL CHARACTERIZATION PROGRAM
List of Processes/Equipment Certified from Table 1 of Memo at Savannah River Site

WDS Method ID#	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
Non-destructive Assay					
1NABC1	NABC – (SR05/SRN5)	Nondestructive Assay Box Counter – 55-gallon drums, standard waste boxes (SWBs), and standard large box 2s (SLB2s) Method identified in CCP-TP-189 and CCP-TP-191	Gamma • Two Co-60 Transmission Sources • Two NaI Gamma Detectors for transmission measurements • Four Broad Energy Germanium (BEGe) Detectors for gamma emission measurements • Six Digital Signal Processors Neutron • 320 He-3 Tubes in High Density Polyethylene Liner • Cf-252 Add-A-Source Correction	• NDA-2000 • Genie-2000	The NABC has two modalities of operation: gamma and neutron. Therefore, two sets of calibration documents exist. For the gamma modality three calibrations are approved: (1) Gamma near-field calibration utilizing multi-curve efficiency-based calibration, in accordance with ASTM Standard C1133/C1133-10 for the Box Segmented Gamma System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. Both 1-hour extended count time and 20-minute reduced count time calibration arrangements are approved for NABC gamma near-field efficiency-based calibration. (2) Gamma near-field calibration utilizing matrix transmission correction-based calibration, in accordance with ASTM Standard C1133/C1133-10 for the Box Segmented Gamma System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. Both 1-hour extended count time and 20-minute reduced count time calibration arrangements are approved for NABC gamma near-field matrix transmission correction-based calibration (3) Gamma [5-foot set-back] far-field calibration utilizing multi-curve efficiency-based calibration, in accordance with ASTM Standard C1133/C1133-10 for the Box Segmented Gamma System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. Both 1-hour extended count time and 20-minute reduced count time calibrations approved for NABC gamma efficiency-based calibration for 55 gallon drums and SWB's. SLB2's[5 foot setback] are approved for one hour counts only and are limited to a two container population. In addition the SLB2 far

CENTRAL CHARACTERIZATION PROGRAM
List of Processes/Equipment Certified from Table 1 of Memo at Savannah River Site

WDS Method ID#	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
					field configuration may not be used for sorting TRU waste. CCP-SRS-SRBC001 R7 For the passive neutron modality, two calibrations are approved: (1) Passive neutron calibration utilizing high-efficiency coincidence and multiplicity counting technique together with Cf-252 Add-A-Source based-calibration for 1-hour extended count time, in accordance with ASTM Standard C-1207 (Neutron Coincidence Counting) and ASTM Standard C-1500 (Neutron Multiplicity Counting) for the Box Neutron Assay System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. The 1-Hour extended count time calibration arrangement is approved for the NABC Box Neutron Assay System neutron coincidence and multiplicity counting Cf-252 Add-A-Source-based calibrations. (2) Passive neutron calibration utilizing high-efficiency coincidence and multiplicity counting technique together with Cf-252 Add-A-Source based-calibration for 20-minute reduced count time, in accordance with ASTM Standard C-1207 (Neutron Coincidence Counting) and ASTM Standard C-1500 (Neutron Multiplicity Counting) for the Box Neutron Assay System at the Savannah River Site, CCP-SRS-NABC-2011-01, May 2, 2011. The 20-minute reduced count time calibration arrangement is approved for the NABC Box Neutron Assay System neutron coincidence and multiplicity counting Cf-252 Add-A-Source-based calibrations. The determination of the TMU for the NABC is

CENTRAL CHARACTERIZATION PROGRAM
List of Processes/Equipment Certified from Table 1 of Memo at Savannah River Site

WDS Method ID#	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
					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.
Non-destructive Examination					
1RR4	RTR-4	Real-time Radiography Method identified in CCP-TP-053 CCP-TP-145	• Shielded x-ray enclosure with a rear container loading door and manually opened personnel door • Conveyer cart • Drum manipulation equipment • X-ray imaging system including x-ray tube, image intensifier, and video camera • Video/audio recording equipment • Mobile platform	N/A	N/A

CENTRAL CHARACTERIZATION PROGRAM
List of Processes/Equipment Certified from Table 1 of Memo at Savannah River Site

WDS Method ID#	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
1LCNDE	LCNDE	Real-time Radiography Method identified in CCP-TP-053 CCP-TP-074	• X-ray source - Linatron 3 MeV linear accelerator • Linear Diode Array (LDA) - X-ray imaging system which is used to produce a single still image of the container. • Area Detector Array (ADA) - X-ray imaging system which provides real time radioscopic images of the container. • Imaging and control software. • Container manipulation equipment • Video/audio recording equipment	N/A	N/A

CENTRAL CHARACTERIZATION PROGRAM
List of Processes/Equipment Certified from Table 1 of Memo at Savannah River Site

WDS Method ID#	Site Equipment #	Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
Visual Examination (SRS-CCP is not currently prepared to use or demonstrate the CH VE process)					
VISUAL	Visual Examination	Visual Examination Method identified in CCP-TP-113, CCP-TP-163	N/A	N/A	N/A
1RHVE1	Visual Examination Activities for Waste Stream SR-RH-SDD.01 only	CCP-TP-500 CCP-TP-163	N/A	N/A	N/A

Dose-to-Curie					
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
Sealed Sources					
16311	OSR ACCESS and Excel	Radiological characterization as described in CCP-RC-SRS-631	Mass based isotopic relationships applying OSRP database for non-plutonium radionuclides as described in CCP-RC-SRS-631	OSRP Access and Excel	N/A

List of Deactivated Equipment

WDS Method ID#	Site Equipment #	Site Description	Date Deactivated
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
1RR3	RTR-15 (owned by SRS)	Real-time Radiography Built by Marietta X-Ray	August 2014

CENTRAL CHARACTERIZATION PROGRAM
LIST OF CERTIFIED PROCEDURES
AT Savannah River Site

#	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-050	CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)
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-005	CCP TRU Nonconforming Item Reporting and Control
12.	CCP-QP-008	CCP Records Management
13.	CCP-QP-010	CCP Document Preparation, Approval, and Control
14.	CCP-QP-014	CCP Quality Assurance Trend Analysis and Reporting
15.	CCP-QP-015	CCP Procurement
16.	CCP-QP-016	CCP Control of Measuring and Testing Equipment
17.	CCP-QP-017	CCP Identification and Control of Items
18.	CCP-QP-018	CCP Management Assessment
19.	CCP-QP-019	CCP Quality Assurance Reporting to Management
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-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
26.	CCP-QP-032	CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing 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-005	CCP Acceptable Knowledge Documentation
30.	CCP-TP-028	CCP Radiographic Test Drum and Training Container Construction
31.	CCP-TP-030	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
32.	CCP-TP-033	CCP Shipping of CH TRU Waste
33.	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
34.	CCP-TP-054	CCP Adjustable Center of Gravity Lift Fixture Preoperational Checks and Shutdown
35.	CCP-TP-055	CCP Varian Porta-Test Leak Detector Operations
36.	CCP-TP-058	CCP NDA Performance Demonstration Program

CENTRAL CHARACTERIZATION PROGRAM LIST OF CERTIFIED PROCEDURES AT Savannah River Site		
#	**Procedure #**	**Procedure Title**
37.	CCP-TP-066	CCP Radiography Screening Procedure for Prohibited Items
38.	CCP-TP-074	CCP Large Container Non-Destructive Examination (LCNDE) Operating Procedure
39.	CCP-TP-082	CCP Waste Container
40.	CCP-TP-086	CCP CCP CH Packaging Payload Assembly
41.	CCP-TP-087	CCP Scale Operations
42.	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination
43.	CCP-TP-120	CCP Container Management
44.	CCP-TP-139	CCP In Situ Object Counting System Nondestructive Assay Operating Procedure
45.	CCP-TP-145	CCP RTR #4 Operating Procedure
46.	CCP-TP-163	CCP Evaluation of Waste Packaging Records for Visual Examination of Records
47.	CCP-TP-189	CCP Box Segmented Gamma System (BSGS) Operating Procedure
48.	CCP-TP-190	CCP Box Segmented Gamma System (BSGS) Calibration Procedure
49.	CCP-TP-191	CCP Box Neutron Assay System (BNAS) Operating Procedure
50.	CCP-TP-192	CCP Box Neutron Assay System (BNAS) Calibration Procedure
51.	CCP-TP-193	CCP Data Reviewing, Validating, and Reporting Procedure for the Nondestructive Assay Box Counters
52.	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
53.	CCP-TP-504	CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste
54.	CCP-TP-505	CCP Removable Lid Canister/Neutron Shielded Canister Loading
55.	CCP-TP-506	CCP Preparation of the RH TRU Waste AK Characterization Reconciliation Report
56.	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic Waste
57.	CCP-TP-509	CCP Remote-Handled Transuranic Container Tracking
58.	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry
59.	CCP-QP-037	CCP Calculations

CCP SRS Deactivated Procedures			
#	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
32.	CCP-QP-004	CCP Corrective Action Management	February 6, 2013
33.	CCP-QP-006	CCP Corrective Action Reporting and Control	February 6, 2013
34.	CCP-QP-011	CCP Laboratory Logbooks	May 14, 2013

CCP SRS Deactivated Procedures			
#	Procedure #	Procedure Title	Deactivation Date
35.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis	May 14, 2013
36.	CCP-TP-180	CCP Analytical Sample Management	May 14, 2013
37.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation	May 14, 2013
38.	CCP-TP-056	CCP HSG Performance Demonstration Plan	May 14, 2013
39.	CCP-TP-093	CCP Sampling of TRU Waste Containers	May 14, 2013
40.	CCP-TP-050	CCP Mobile Segmented Gamma Scanner Calibration Procedure	July, 2010
41.	CCP-TP-051	CCP Mobile Segmented Gamma Scanner Operation	July, 2010
42.	CCP-TP-052	CCP Mobile Segmented Gamma Scanner Data Reviewing, Validating, and Re porting	July, 2010
43.	CCP-TP-510	CCP Remote-Handled Radiography Test and Training Drum Requirements	April 2012
44.	CCP-QP-029	CCP Corrective Action Management	September 2013
45.	CCP-PO-008	CCP Quality Assurance Interface with the WTS Quality Assurance Program	June 3, 2013
46.	CCP-QP-021	CCP Surveillance Program	July 28, 2015
47.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization	June 19, 2013
48.	CCP-TP-035	CCP Container Management	May 27, 2015
49.	CCP-TP-075	CCP RTR #15 Operating Procedure	September 23, 2014
50.	CCP-TP-098	CCP Installation of the NucFil HSG Sample Port	January 22, 2013
51.	CCP-TP-136	CCP Standardized Prohibited Item Remediation	December 4, 2012

Table 1. Tiering of Contact-Handled Transuranic Waste Characterization Processes Implemented by SRS-CCP (Based on October 31–November 3, 2005, Baseline Inspection and Subsequent Tier 1 Evaluations, Updated February 2015)

Process Elements	SRS-CCP CH Waste Characterization Processes – T1 Changes	SRS-CCP CH Waste Characterization Processes – T2 Changes*
Acceptable Knowledge, including Load Management	Load management for the S3000 summary category group	**Submission of a list of SRS-CCP CH AKEs and SPMs that performed work during the previous quarter** Notification to EPA upon completion of or substantive modification** to: • AK accuracy reports (annually, at a minimum) • AK-AK and AK-NDA/NDE Discrepancy Resolution Reports • WSPFs and AKSRs and related attachments (e.g., CIS) for all new or modified waste streams, including change notices • CCP-TP-005, Attachments 4, 6 and 7 and associated memoranda • Add Container Memoranda • The load management status of approved waste streams • Site procedures requiring CBFO approval • Any waste identified outside of the waste profiles included in the 2002 Transuranic Waste Baseline Inventory Report • Creation of newly generated soil or debris waste streams through remediation or decontamination and decommissioning activities
Nondestructive Assay	New equipment or substantive physical modifications** to approved equipment Extension of or changes to the approved calibration range for approved equipment	**Submission of a list of SRS-CCP NDA operators, EAs and ITRs that performed work during the previous quarter** Notification to EPA upon substantive modification** to: • Site procedures requiring CBFO approval • Software for approved equipment • Operating ranges upon CBFO approval
Real-Time Radiography	None	**Submission of a list of SRS-CCP CH RTR operators and ITRs that performed work during the previous quarter** Notification to EPA upon: • New equipment or substantive physical modifications** to approved equipment • Substantive modification** to site procedures requiring CBFO approval

Table 1. Tiering of Contact-Handled Transuranic Waste Characterization Processes Implemented by SRS-CCP (Based on October 31–November 3, 2005, Baseline Inspection and Subsequent Tier 1 Evaluations, Updated February 2015)

Process Elements	SRS-CCP CH Waste Characterization Processes – T1 Changes	SRS-CCP CH Waste Characterization Processes – T2 Changes*
Visual Examination and Visual Examination Technique	**Any use of visual examination**	Notification to EPA upon substantive modification** to site procedures requiring CBFO approval
WIPP Waste Data System	Changes to Waste Data System algorithms specific to load management.	Notification to EPA upon substantive modification** to: • Site procedures requiring CBFO approval • The load management status of approved waste streams

New T1s, T2s and significant modifications to existing T1s or T2s are in **bold** text; T1s or T2s that were only revised for style are not shown in bold.

* SRS-CCP will report all T2 changes to EPA every three months.

** "Substantive modification" refers to a change with the potential to affect SRS-CCP's CH waste characterization processes or documentation of them, excluding changes that are solely related to the environment, safety and health; nuclear safety; or the Resource Conservation and Recovery Act; or that are editorial in nature or are required to address administrative concerns. EPA may request copies of new references that DOE adds during a document revision.

Table 2. Tiering of Remote-Handled Transuranic Waste Characterization Processes Implemented by SRS-CCP (Based on August 20–September 1, 2011, and December 6–7, 2011, Baseline Inspection, Updated February 2015)

Process Elements	SRS-CCP RH Waste Characterization Process – T1 Changes	SRS-CCP RH Waste Characterization Process – T2 Changes*
Acceptable Knowledge	Any new SCG S3000 or S4000 RH waste stream Any new SCG S5000 RH waste stream that does not have a companion CH waste stream **Load management for any RH waste stream** Substantive modification** to EPA-approved AKSRs and certification confirmation test plans (e.g., CCP-AK-SRS-580, CCP-AK-SRS-582, CCP-CP-SRS-562)	**Submission of a list of SRS-CCP RH AKEs and SPMs that performed work during the previous quarter** Notification to EPA upon characterization of any new SCG S5000 RH waste stream that does have a companion CH waste stream Notification to EPA upon availability of or nonsubstantive modification** to AKSRs and certification confirmation test plans (e.g., CCP-AK-SRS-580, CCP-AK-SRS-582, CCP-CP-SRS-562) Notification to EPA upon availability of or modification to: • Site procedures requiring CBFO approval • **CCP-TP-005 Attachments 4, 6, 8 and 15**, including when Attachment 4 is generated to reflect the updated AKSR Source Document Reference List • WSPF, CIS, CRR and related attachments, and any subsequent revisions to these documents • AK accuracy reports (annually, at a minimum) • Add container memoranda • Additional discrepancy resolution reports and nonconformance reports
Radiological Characterization, including Dose-to-Curie	Use of the MCS/ISOCS to provide any information other than the relative determinations of gamma-emitting radionuclides for use as scaling factors Future use of the ORTEC/ISOCS for any RH TRU waste Application of new (i.e., not EPA-approved) scaling factor processes for isotopic determination (applies to new RH waste streams and to the addition of containers to an approved waste stream) Substantive modification** to EPA-approved procedures or radiological characterization technical reports (e.g., CCP-TP-504, CCP-AK-SRS-581, CCP-RC-SRS-561)	**Submission of a list of SRS-CCP DTC and ISOCS operators, EAs and ITRs that performed work during the previous quarter** Notification to EPA upon: • Characterization of any new RH waste stream using an approved scaling factor process for isotopic determination • Modification of the procedures or radiological characterization technical reports (e.g., CCP-TP-504, CCP-AK-SRS-581, CCP-RC-SRS-561) requiring CBFO approval • Availability of calculation package CCP-SRS-44 or equivalent records
Visual Examination	Any use of visual examination	N/A

Table 2. Tiering of Remote-Handled Transuranic Waste Characterization Processes Implemented by SRS-CCP (Based on August 20–September 1, 2011, and December 6–7, 2011, Baseline Inspection, Updated February 2015)

Process Elements	SRS-CCP RH Waste Characterization Process – T1 Changes	SRS-CCP RH Waste Characterization Process – T2 Changes*
Real-Time Radiography	Real-time radiography by any new process	Submission of a list of SRS-CCP RH RTR operators and ITRs that performed work during the previous quarter Notification to EPA upon: • Substantive modification** to site procedures requiring CBFO approval • Characterization of SCG S3000 or S4000 RH waste by an approved process

New T1s, T2s and significant modifications to existing T1s or T2s are in **bold** text; T1s or T2s that were only revised for style are not shown in bold.

* SRS-CCP will report all unmarked T2 changes to EPA every three months.

** "Substantive modification" refers to a change with the potential to affect SRS-CCP's RH waste characterization processes or documentation of them, excluding changes that are solely related to the environment, safety and health; nuclear safety; or the Resource Conservation and Recovery Act; or that are editorial in nature or are required to address administrative concerns. EPA may request copies of new references that DOE adds during a document revision.