

United States Government

Department of Energy

memorandum

 Carlsbad Field Office
 Carlsbad, New Mexico 88221


DATE: NOV 18 2010

REPLY TO
ATTN OF: CBFO:QA:DSM:MAG:10-1879:UFC 2300.00

SUBJECT: Interim Audit Report for Recertification Audit A-11-01 of the SRS/CCP

TO: Herbert Crapse, DOE-SR

The Carlsbad Field Office (CBFO) conducted recertification audit A-11-01 of the Savannah River Site Central Characterization Project (SRS/CCP) on October 26-28, 2010. The CBFO Interim Audit Report is attached.

The audit team concluded that the SRS/CCP implementing procedures are adequate relative to the flow-down of requirements. The audit team determined that the SRS/CCP quality assurance and technical requirements are being satisfactorily implemented and are effective in all areas, except those associated with the Large Container Non-Destructive Examination System, which is indeterminate at this time.

As a result of the audit, two CBFO Corrective Action Reports (CARs) were issued. One condition adverse to quality (CAQ), isolated in nature, was corrected during the audit. The audit team identified two Observations during the audit and offered one Recommendation to SRS/CCP management for consideration.

If you have any questions, please contact me at (575) 234-7491.

Dennis S. Miehls
Senior Quality Assurance Specialist

Attachment

cc: w/attachment

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**U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE**

INTERIM AUDIT REPORT

OF THE

SAVANNAH RIVER SITE-CENTRAL CHARACTERIZATION PROJECT

**AIKEN, SOUTH CAROLINA,
AND CARLSBAD, NEW MEXICO**

AUDIT NUMBER A-11-01

October 26 – 28, 2010

TRU WASTE CHARACTERIZATION AND CERTIFICATION ACTIVITIES



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Date: 11-17-10

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Date: 11/18/10

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-11-01 was conducted to evaluate the adequacy, implementation, and effectiveness of Savannah River Site (SRS) transuranic (TRU) waste characterization activities performed for SRS by the Washington TRU Solutions (WTS) Central Characterization Project (CCP) relative to the requirements detailed in the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the *CBFO Quality Assurance Program Document (QAPD)*, the *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, the *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*, the *CCP Contact-Handled Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*, and the *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)*.

The audit team evaluated contact-handled (CH) Summary Category Groups (SCGs) S3000 homogeneous solids waste, S4000 soils/gravel waste, and S5000 debris waste, and remote-handled (RH) SCGs S3000 homogeneous solids waste and S5000 debris waste, in addition to other technical elements, quality assurance (QA) elements, and transportation activities. The specific items audited are listed in section 2.1.

The audit was conducted at the SRS-CCP facilities near Aiken, SC, and the WTS/CCP facilities in Carlsbad, NM, October 26 through 28, 2010. The audit team concluded that overall, the SRS-CCP technical and QA programs, as applicable to audited activities, were adequately established for compliance with the applicable upper-tier requirements. The audit team verified that the SRS-CCP program for characterization and certification activities related to CH SCGs S3000 homogeneous solids waste, S4000 soils/gravel waste, and S5000 debris waste, and RH SCGs S3000 homogeneous solids waste and S5000 debris waste continue to be adequate, satisfactorily implemented, and effective. Initial certification activities related to the Real-Time Radiography (RTR) Unit 4 to characterize the standard large box 2s (SLB2s) were determined to be adequate. Initial certification activities related to the Large Container Non-Destructive Examination (LCNDE) System to characterize standard waste boxes (SWBs) and SLB2s were deemed indeterminate at this time. The audit team determined that the SRS-CCP QA and technical requirements are being satisfactorily implemented and are effective in all areas except those associated with the LCNDE System, which will be evaluated at a later date.

The audit team identified two conditions adverse to quality, resulting in the issuance of CBFO Corrective Action Reports (CARs) 11-006 and 11-007. The CARs were identified during the evaluation of QA records and are discussed in detail in section 6.1.

One deficiency, isolated in nature and requiring only remedial corrective action, was identified and corrected during the audit (CDA). The correction was verified prior to the end of the audit (see section 6.2). Two Observations were identified during the audit, and one Recommendation was offered for management consideration. The Observations and Recommendation are described in sections 6.3 and 6.4.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the continued adequacy, implementation, and effectiveness of the SRS-CCP TRU waste characterization and certification activities for CH SCGs S3000 homogeneous solids waste, S4000 soils/gravel waste, and S5000 debris waste, and RH SCGs S3000 homogeneous solids waste and S5000 debris waste. The audit team also evaluated for initial certification the RTR Unit 4 to characterize SLB2s and the LCNDE System to characterize SWBs and SLB2s.

The following elements were evaluated:

Quality Assurance

- Personnel Qualification and Training
- Nonconformance Reporting
- Records

Technical

- Data Validation and Verification (V&V) (Project and Generation Level)
- Nondestructive Assay (NDA)
- Dose-to-Curie (DTC)
- Solids/Soils Sampling and Analysis
- Acceptable Knowledge (AK)
- Waste Certification (e.g., Waste Stream Profile Forms (WSPFs))
- Headspace Gas Sampling (HSG)
- Real-Time Radiography (RTR)
- Visual Examination (VE)
- WIPP Waste Information System/Waste Data System (WWIS/WDS)
- Flammable Gas Analysis
- Performance Demonstration Program (PDP)
- Container Management

TRUPACT-II Operations/Waste Certification/Transportation

- Packaging Operations
- Payload Assembly
- Leak Testing
- Shipping

The evaluation of SRS-CCP TRU waste activities and documents was based on current revisions of the following documents:

Hazardous Waste Facility Permit, Waste Isolation Pilot Plant EPA No. NM4890139088-TSDF, the New Mexico Environment Department (HWFP)
CBFO Quality Assurance Program Document (QAPD), DOE/CBFO-94-1012
Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant Project (WAC), DOE/WIPP-02-3122
Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP), DOE/WIPP-02-3214
CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP), CCP-PO-001
CCP Transuranic Waste Certification Plan, CCP-PO-002
CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC), CCP-PO-003
CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC), CCP-PO-505
CCP/SRS Interface Document, CCP-PO-004
Related technical and quality assurance implementing procedures

2.2 Purpose

The audit team evaluated the continued adequacy, implementation, and effectiveness of SRS TRU waste activities as they relate to the WIPP HWFP for CH SCGs S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris waste, and RH SCGs S3000 homogeneous solids and S5000 debris waste. The audit team also evaluated the initial certification of the RTR Unit 4 to characterize SLB2s, and the LCNDE System to characterize SWBs and SLB2s.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Dennis Miehl	Audit Team Management Representative, CBFO
Priscilla Y. Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Earl Bradford	Auditor, CTAC
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OBSERVERS

Thomas Morgan	CBFO
Steve Holmes	New Mexico Environment Department (NMED)
Tim Hall	NMED
Ricardo Maestas	NMED
Dorothy Gill	NMED Contractor

4.0 AUDIT PARTICIPANTS

SRS and CCP personnel contacted during the audit are identified in Attachment 1. A pre-audit meeting was held at the SRS in trailer 707-9E, and at the Skeen-Whitlock Building, in Carlsbad, NM, on October 26, 2010. Daily briefings were held with SRS and CCP management and staff to discuss issues and potential deficiencies. The audit was concluded with a post-audit meeting held at SRS in trailer 707-9E and via teleconference with personnel at the Skeen-Whitlock Building, on October 28, 2010.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

This audit was performed to assess the ability of SRS-CCP to characterize CH SCG S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris waste, and RH SCG S3000 homogeneous solids and S5000 debris waste to the requirements specified in the CBFO QAPD, the HWFP *Waste Analysis Plan (WAP)*, and the WAC. The related characterization methods assessed were AK, HSG Sampling and Analysis, Solids Sampling and Analysis, RTR, VE, DTC, and NDA. Other areas evaluated were project-level data V&V, data quality objective (DQO) reconciliation, the preparation of WSPFs, WWIS/WDS data entry, PDP, and the SRS-CCP QA program.

The audit team concluded that the applicable SRS-CCP TRU waste characterization activities, as described in the associated SRS-CCP implementing procedures, are satisfactory in meeting upper-tier requirements, except those associated with the LCNDE System, which is indeterminate at this time. Attachment 2 contains a Summary Table of Audit Results. Attachment 3 contains a table of documents evaluated during the audit. Attachment 4 is a list of the processes and equipment evaluated during the audit. Details of audit activities are described below.

5.2 General

5.2.1 Results of Previous Audits

The results of CBFO recertification Audit A-10-01 of SRS-CCP were examined and the audit team determined that the concerns identified in the audit have been addressed.

5.2.2 Changes in Program or Operations

Six Acceptable Knowledge Sufficiency Determinations (AKSDs) were evaluated and approved by NMED and the Environmental Protection Agency (EPA) since the last audit. The following six RH waste streams resulted from the demolition of the alpha gamma hot cell in Building JN-1 at Battelle Columbus Laboratory (BCL):

SR-BCLDP.001.001, S3000 homogeneous waste (five drums)

SR-BCLDP.001.002, S5000 composite filter debris (four drums)

SR-BCLDP.002, S3000 cemented slugs (one drum)

SR-BCLDP.003, S3000 hydraulic sludge and debris (seven 55-gallon drums)

SR-BCLDP.004.002, S5000 cartridge water filters (five drums)

SR-BCLDP.004.003, S5000 Tri-Nuc vacuum filters (two drums)

5.2.3 New Programs or Activities Being Implemented

New activities being implemented at SRS-CCP are the initial certification of RTR Unit 4 to characterize SLB2s and the LCNDE System to characterize SWBs and SLB2s.

5.2.4 Changes in Key Personnel

No changes in key personnel have been made since the performance of the Audit A-10-01.

5.3 Quality Assurance Activities

Personnel Qualification and Training

The audit team verified that SRS-CCP met the requirements of QAPD Section 1.2, Personnel Qualification and Training. The audit team conducted interviews with responsible personnel in the CCP Training Department. A review of implementing procedure CCP-QP-002, Rev. 29, *CCP Training and Qualification Plan*, determined the degree to which the procedure adequately addresses upper-tier requirements.

Personnel training records associated with VE, RTR, NDA, DTC, HSG Sampling, Transportation and Packaging Operations, AK, and Site Project Manager (SPM) were examined to verify implementation of associated requirements and to verify that personnel performing characterization activities are appropriately qualified. Record

reviews included qualification cards and other pertinent qualification documentation including RTR Level-II certificates, required reading of AK summaries for RTR and VE operators, and capability demonstrations.

One concern was identified and resulted in the issuance of CAR 11-007. While reviewing the CCP Training records, the audit team found some records to be incomplete. Some of these inconsistencies included boxes on forms not checked, dates missing on signature lines, headers missing from qualification cards, pages not superseded, pages numbered incorrectly, and blanks not marked "not applicable" (N/A) (see CAR 11-007 in section 6.1).

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for personnel qualification and training are adequate, satisfactorily implemented, and effective.

Nonconformance Reporting

The audit team verified that SRS-CCP met the requirements of QAPD Section 1.3, Quality Improvement. The audit team conducted interviews with representatives of the CCP QA Program. Implementing procedure CCP-QP-005, Rev. 19, *CCP TRU Nonconforming Item Reporting and Control*, was reviewed to determine the degree to which the procedure adequately addressed upper-tier requirements. Evidence of the control of nonconformances was verified through the review of the nonconformance report (NCR) logs/database and NCRs issued.

Randomly selected NCRs were evaluated to ensure that conditions adverse to quality were appropriately identified, documented, dispositioned, resolved, and tracked through closure. The selected NCRs (NCR-SRS-0513-10, NCR-SRS-0514-10, NCR-SRS-0526-10, and NCR-RHBCL-0001-10) were reviewed, including verification to ensure that SRS-CCP was appropriately documenting and reporting WAP-related nonconformances (identified at the site project management level) to CBFO as required.

The procedure reviews and document reviews provided evidence that the applicable requirements for nonconformances are adequate, satisfactorily implemented, and effective.

Records

The audit team conducted interviews and reviewed implementing procedures relative to the control and administration of QA records to determine the degree to which the procedures adequately address upper-tier requirements. The procedure review included CCP-PO-001, Rev. 18, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*; CCP-QP-008, Rev. 16, *CCP Records Management*, and CCP-QP-028, Rev. 11, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*. Control of QA records was verified through review of the CH Records Inventory and Disposition Schedule (RIDS) dated 6/7/10, and RH RIDS dated 6/7/10.

The review resulted in two concerns. Both concerns were determined to be Observations for CCP Records.

Observation 1 concerns DOE form 1324.10, which is provided by WRMS to complete the RIDS. The provided form is incorrect and is being used by CCP Records (refer to CAR-11-006).

Observation 2 concerns the CCP RH RIDS. The method of validation listed for item number 18(a), is incorrect. This signature of validation is listed as the Waste Operations Operator Mechanic instead of the Waste Certification Official. Referencing a specific person/position to perform the validation is not required.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for QA records are adequate, satisfactorily implemented, and effective.

5.4 Technical Activities

Evaluations of applicable SRS-CCP technical activities are summarized in the following subsections.

5.4.1 Project-Level Validation and Verification

The audit team reviewed objective evidence to ensure project-level activities were adequately performed to support waste characterization. Objective evidence included completed batch data reports (BDRs) through CCP SPM review for NDE, HSG sampling and analysis, VE, and solids and soils/gravel sampling and analysis. In addition, procedures and objective evidence were reviewed to ensure that SRS-CCP adequately performs random container selection for HSG, solids and soils/gravel, and data reconciliation, and properly prepares WSPFs.

Objective evidence was reviewed to determine the adequacy of the SPM V&V procedures and the reporting of the results of the validation. Evidence included BDRs from each of the waste characterization activities. The flow of data from the point of generation to inclusion in the WSPF for each characterization technique was reviewed to ensure that all applicable requirements were captured in the site operating procedures. The project-level data V&V process was evaluated by reviewing the following BDRs:

NDE

SR4RTR0098, SR4RTR0099, SRSRTR0368

VE

RHSRSVE080001, RHSRSVE080002

HSG Sampling and Analysis

SRHSGS090006, ECL09041G, ECL09041M

Solids and Soils/Gravel Sampling and Analysis

SSC09-00007, ALD09013M, ALD09013N, ALD09013S, ALD09013V

Some of the BDRs reviewed were used to demonstrate confirmation of AK, reconcile DQOs, and prepare WSPFs. WSPFs reviewed were for waste streams SR-MD-HOM-A, SR-MD-PAD1, and SR-MD-SOIL. Also reviewed were the characterization reconciliation reports for Battelle Columbus Laboratory RH waste.

The audit team reviewed quarterly reports of data generation-level requirements for NDE, HSG, and VE. The soils/gravel quarterly results were reviewed previously.

There have been no characterization activities on S4000 soils/gravel waste since Audit A-06-01; however, SRS-CCP maintains the capability to process the waste should additional soils/gravel waste be encountered.

The audit team reviewed the RH WSPF Characterization Information Summary (WSPF/CIS) for SR-BCLDP.001.002 (S5000) and SR-BCLDP.004.003 (S5000). VE is the only characterization performed on these waste streams. SRS-CCP submitted AKSDs for these waste streams.

The audit team also reviewed the CH WSPF CIS for S4000 (SR-MD-SOIL Lot 1), S3000 (SR-MD-HOM-A Lot 1), and S5000 (SR-MD-PAD1 Lot 1).

The soils/gravel waste stream sampling and analysis for SRS-CCP is performed at the Idaho National Laboratory (INL), using a characterization process approved under a separate certification. There have been no characterization activities on SCG S4000 waste since recertification Audit A-06-01. Solids sampling and analysis of SCG S3000 waste was performed at the INL. Project-level review of solids sampling and analysis was determined to be adequate, satisfactorily implemented, and effective.

The CCP procedures governing HSG sampling using SUMMA[®] canisters and data review and validation included CCP-TP-093, Rev. 13, *CCP Sampling of TRU Waste Containers*, and CCP-TP-106, Rev. 6, *CCP Headspace Gas Sampling Batch Data Report Preparation*.

Currently, SRS-CCP performs HSG sampling using SUMMA[®] canisters. Sampling BDR SRHSGS090006 for S5000 debris waste was examined. Drum age criteria (DAC), sample chain-of-custody (COC), and shipment to the analytical laboratory were reviewed and determined to be compliant. The HSG analysis of the SUMMA[®] samples was reviewed by the audit team, as well as the training and qualification of V&V personnel.

The SRS-CCP NDE and VE project-level processes were evaluated to determine the effectiveness of NDE and VE methods. The audit team reviewed BDRs SR4RTR0098, SR4RTR0099, and SRSRTR0368. The RH portion of the audit consisted of reviewing the procedures and the SCG S3000 and SCG S5000 containers in BDRs RHSRSVE080001 and RHSRSVE080002.

No concerns were identified. Overall, project-level activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.2 Solids Sampling and Analysis

Solids sampling and analysis and associated data generation-level V&V are performed at INL under a separate certified program. However, the audit team did evaluate the random selection requirements for solids sampling, along with the associated BDRs. Additionally, the audit team evaluated the results of the analysis provided to SRS-CCP as part of the project-level data V&V evaluations.

No concerns were identified. Overall, the audit team determined that the requirements for solids sampling and analysis were adequate, satisfactorily implemented, and effective.

5.4.3 Acceptable Knowledge

The audit team reviewed AK documentation for all three CH TRU waste SCGs and RH TRU waste SCGs S5000 and S3000. The audit team utilized the WAP B6 checklists, primarily checklist B6-3, as a guide for demonstration of compliance with the requirements of the WAP. In addition, for the RH waste streams, the audit team reviewed AK documentation in relation to the requirements of the RH-TRU WCPIP driven primarily by EPA requirements.

The audit team examined the AK records for five waste streams representing the five types of waste noted above including SR-MD-Pad1 CH debris, SR-MD-SOIL, SR-MD-HOM-A, a CH solids stream, SR-BCLDP.001.001 homogeneous RH waste and SR-BCLDP.001.002 RH composite filter debris waste described in AK Summaries CCP-AK-SRS-8, Rev. 6 (for SR-MD-HOM-A and SR-MD-SOIL), CCP-AK-SRS-9, Rev. 2 (for SR-MD-PAD 1), and CCP-AK-SRS-510, Rev. 2 (for SR-BCLDP.001.001 and SR-BCLDP.001.002).

Numerous documents that demonstrate compliance with these requirements were reviewed and compiled as objective evidence, including the above-noted AK Summary Reports and AK Attachments 1, 4, 5, 6, 7 and 8. The audit team also examined applicable WSPFs and attachments, numerous AK Source Document Summaries, and BDRs for the required characterization testing activities including NDA, DTC, RTR, VE, and Solids and HSG sampling and analysis (S&A). For the two RH-TRU streams examined, CCP has received approval from CBFO and NMED of the AKSDs submitted in lieu of HSG and solids S&A. Numerous examples of AK discrepancy resolution documentation for discrepancies in the AK record and for discrepancies identified during characterization activities were also examined, along with NCRs dealing with the identification and disposition of prohibited items.

The permit required traceability exercise was completed for nine waste containers from the five streams reviewed; including containers selected for either HSG or solids S&A. Random container selection memos were reviewed, along with applicable BDRs and

HSG and solids summary reports. AK data reconciliation packages, including the requisite AK Characterization Checklists, were examined for shipping lots from each waste stream. The audit team also reviewed examples from the databases used to manage the movement of drums through the characterization and certification process, and examined the process for physically and electronically placing a "hold" on non-compliant waste containers. Other objective evidence reviewed and compiled included the applicable AK Accuracy Reports, training records for AK and SPM personnel, and a copy of the most recent and relevant internal surveillance.

With respect to the two RH-TRU waste streams reviewed, in addition to addressing and compiling objective evidence for the WAP requirements as noted on checklists B6-3 and B6-1, two additional checklists were completed during the audit for the requirements of the WCPIP, including the AK requirements listed in attachment A, completion of the WCPIP WSPF, an AK Accuracy Report, and a Characterization Reconciliation Report (CRR). The focus of the WCPIP requirements is upon physical and radiological properties and the absence of prohibited amounts of liquid. The audit team examined AK source documentation that supported these parameters in the AK Summary and in the CCP RH-TRU Radiological Characterization Technical Report for these waste streams in CCP-AK-SRS-511A and CCP-AK-SRS-511B, respectively. The CRRs were reviewed to assure that for each of the DQOs identified in the WCPIP, the supporting AK sources and method of qualification of the data were appropriately identified, along with meeting the relevant QAOs.

The review resulted in one concern that included changes be made to each of the three AK Summaries reviewed to provide clarification and consistency (see Recommendation 1 in section 6.4).

Overall, the Acceptable Knowledge Program was determined to be adequate, satisfactorily implemented, and effective.

5.4.4 Headspace Gas Sampling and Analysis

The audit team conducted interviews and examined related records in the area of SRS-CCP HSG sampling activities. SRS-CCP performs HSG sampling using SUMMA[®] canisters for sample collection. Samples are then shipped to INL for analysis.

The audit team reviewed Sampling BDRs SRHSGS090006, SRHSGS100001, and SRHSGS100002 for debris waste. DAC, operational logbook, sample COC, and transfer to the analytical laboratory were reviewed and found to be compliant. Material and testing equipment (M&TE) certifications were audited. Training and qualification of sampling individuals were confirmed to be acceptable to the CCP program. Interviews were conducted with sampling personnel. There were no TRU waste sampling activities during the audit.

During the audit, a CAQ was identified that resulted in a CDA (see CDA 1 in section 6.2). The audit team noticed that the calibration due date for the pressure indicator in the M&TE database was not consistent with the due date specified in the certificate.

The concern was closed during the audit as sufficient documentation (i.e., historical calibration records, manufacturer's recommendation, revised calibration certificate by the calibration lab, and updated M&TE record from CCP), was reviewed and found acceptable.

Overall, the HSG sampling activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.5 Real-Time-Radiography

The audit team reviewed the following RTR-related CCP procedures: CCP-QP-011, Rev. 10, *CCP Laboratory Logbooks*; CCP-TP-028, Rev. 5, *CCP Radiographic Test and Training Drum Construction*; CCP-TP-053, Rev. 9, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*; CCP-QP-002, Rev. 29, *CCP Training and Qualification Plan*; CCP-TP-074, Rev. 1, *CCP Large Container Non-Destructive Examination (LCNDE) Operating Procedure*; CCP-TP-145, Rev. 2, *CCP RTR #4 Operating Procedure*; CCP-TP-066, Rev. 10, *CCP Radiography Screening Procedure for Prohibited Items*; CCP-TP-136, Rev. 2, *CCP Standardized Prohibited Item Remediation*; and CCP-QP-016, Rev. 15, *CCP Control of Measuring and Testing Equipment*. The review determined that the procedures adequately address requirements from upper-tier documents.

The audit team examined the following five RTR BDRs and their associated video recordings:

SR4RTR0110
SR4RTR0112
SR4RTR0105
SRSRTR0365
SR4RTR0107

The audit team evaluated evidence of RTR operator-required capability demonstrations for five RTR operators. Records of RTR operator training and qualification, including capability demonstrations, were examined, which indicated that operators were appropriately qualified as required.

The audit team toured Cell 2 and observed operation of the LCNDE System. The unit was operated to demonstrate operation for the audit team using a SWB. The audit team toured Pad 4, Area E, to observe operation of the RTR-4 Unit. The team witnessed the certification of SWB Container Number WMAPSWB308. The team also observed the SRS 15 Unit, which was not being operated at the time of the audit. During the walk-through, the audit team verified the acceptability of equipment. The audit team verified RTR operations were performed to current procedures, interviewed RTR personnel, and reviewed operational logbooks and standing work orders.

The audit team was unable to review BDRs from the LCNDE at the time of the audit. The audit team will review these data when it becomes available to determine implementation and effectiveness of this process.

Overall, RTR activities were determined to be adequate satisfactorily implemented, and effective, except for those activities associated with the LCNDE System, which is indeterminate at this time.

5.4.6 Visual Examination

The audit team evaluated the adequacy, implementation, and effectiveness of the SRS-CCP VE process for characterizing CH SCG S5000 debris waste and S4000 soils/gravel waste. The audit team also evaluated the adequacy, implementation, and effectiveness of the SRS-CCP VE process for characterizing RH SCG S3000 homogeneous solids waste and S5000 debris waste.

The audit team evaluated procedures CCP-TP-113, Rev. 14, *CCP Standard Contact-Handled Waste Visual Examination*; CCP-TP-163, Rev. 2, *CCP Evaluation of Waste Packaging Records for Visual Examination of Records*; CCP-TP-500, Rev. 9, *CCP Remote-Handled Waste Visual Examination*; and CCP-QP-002, Rev. 29, *CCP Training and Qualification Plan*, to determine their adequacy in addressing upper-tier requirements. The review determined that the procedures adequately address requirements.

SRS-CCP uses the two-operator method when performing VE characterization activities for CH waste. Two qualified operators visually examine the waste and placed it into 55-gallon drums. No RH waste has been characterized using the VE processes, as stipulated in procedures CCP-TP-163 and CCP-TP-500, since the last certification audit.

The audit team examined the following CH VE BDRs to verify implementation and compliance with the requirements for documenting VE activities, as stipulated in CCP-TP-113:

SRVEFW0303
SRVEFW0307
SRVEFW0310
SRVEFW0290
SRVEFW0294
SRVEFW0295

During review of the BDRs, the audit team verified TRUCON codes matched those documented in the AK summaries, and examined associated NCRs and verified disposition status to completion. In addition, the audit team reviewed NCRs in which the waste did not match the waste stream description produced by AK and verified AK Discrepancy Resolutions had been completed.

The audit team examined training and qualification records for three VE operators and one SPM and concluded the required training was adequate and qualifications were current. The audit team also confirmed the appointment of an SRS-CCP VE Expert (VEE), as required.

The audit team performed a walk-through of the F-Canyon facility, Building 221-F, where VE of CH waste is performed and where the containers are weighed after the VE process is complete. Container weight scale TRUF020, torque wrench TRUF045, and calibration weights TRUF048, TRUF028, and SW0007-33 were verified to be within calibration requirements and in the CCP M&TE maintenance program. The audit team interviewed a VE operator/VEE for CH VE operations, and a VE operator/VEE for RH VE operations, and verified the use of current AK summaries and VE operating procedures. The audit team also examined VE operational logbook SRSVE013, 2010 – SRS F Area Warm Crane, and verified logbook entries were reviewed by the Vendor Project Manager (VPM).

Overall, VE activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.7 Nondestructive Assay/Dose-to-Curie

The audit team conducted interviews with responsible NDA Expert Analysts and examined NDA and DTC associated documentation at the Canberra offices located at 227 Gateway Drive, Aiken, SC. Prior to the audit, the audit team randomly selected a representative sample of NDA BDRs generated as a result of NDA measurements. The BDRs selected included:

Segmented Gamma Scanner (SGS)

SRSGS310
SRSGS311
SRSGS312
SRSGS314
SRSGS315

Nondestructive Assay Box Counter (NABC)

SRLBC0001	SRLBC0204
SRLBC0179	SRLBC0206
SRLBC0180	SRLBC0210
SRLBC0181	SRLBC0211
SRLBC0182	SRLBC0218
SRLBC0185	SRLBC0220
SRLBC0186	SRLBC0222
SRLBC0189	SRLBC0227
SRLBC0197	SRLBC0230
SRLBC0202	

The NDA BDRs examined were generated as a result of NDA activities for CH TRU waste associated with the Mobile Characterization Systems (MCS) Mobile Segmented Gamma Scanner (SGS) for examining drummed waste. The audit team also examined BDRs generated from the NABC (also known as the Savannah River Box Counter (SRBC)), made up of the Box Segmented Gamma System (BSGS) (also known as the Segmented Gamma Box Counter (SGBC)), and the Box Neutron Assay System (BNAS). The BNAS examines SCG S5000 (debris) wastes contained in 55-gallon (208-liter) drums, SLB2s, and SWBs.

The MCS SGS (1SG1) was utilized at SRS in 2010. It was deactivated in March 2010 and was moved off site in April 2010.

The audit team examined the NDA units at Area E, Pad 4, and Building 643-43E, and reviewed operational procedures and equipment logbooks. Also, the audit team interviewed operations personnel and verified general conduct of operations. The audit team determined that the appropriate operational procedures are readily accessible and are appropriately used as required. Additionally, entries observed in the associated logbooks were deemed legible and sufficient to describe the related activities. Corrections to errors were appropriately annotated as required. No concerns were noted during field observations.

When in use, the Mobile SGS can quantify the activities and masses of radionuclides in the waste through the detection of gamma rays emitted by the waste. The Mobile SGS contains one collimated high purity germanium (HPGe) coaxial detector and one Ba-133 transmission source that are translated vertically in a line parallel to the axis of the drum during the assay. A Low Energy Germanium (LEGe) detector is used along with Multi-Group Analysis (MGA) software to determine the isotopic ratios of plutonium and/or uranium.

The NABC system consists of a SGS and a separate neutron assay counter. The SGS uses four HPGe detectors to measure passive gamma emissions from the waste. The system can measure 55-gallon drums, SWBs, and SLB2s. The SGS utilizes both a transmission and an efficiency correction. Transmission correction is accomplished by scanning the waste with an active gamma source (in this case, two 250 mCi ⁶⁰Co sources (approximate as of date of installation) paired with two 5-inch (dia) X 4-inch (depth) sodium iodide detectors). Each ⁶⁰Co source has a variable attenuation shutter that is independently controlled so that a transmission correction can be optimized for each measurement segment.

Neutron measurement is performed by the BNAS. The BNAS has two operating modes: efficiency-determined multiplicity analysis mode and standard neutron coincidence counting (NCC) mode. The counter utilizes 320 ³He proportional tubes arranged in a 4Π geometry about the assay cavity and divided into 80 counting channels. Matrix correction is accomplished by using an Add-A-Source (AAS) where the empty chamber response to the AAS is compared to system response with the waste present, and the AAS inserted to determine neutron moderation characteristics of the waste matrix. NDA 2000 software is used to control these systems.

All of these systems were examined previously as part of CBFO Audit A-10-01 conducted during October 2009. As part of Audit A-10-01, CCP sought approval for operations to include the option for 20-minute count times in addition to the previously approved 60-minute count times. As a result of Audit A-10-01, the option for shortened count times was approved pending the successful completion of a supplementary PDP cycle to demonstrate successful conduct at the 20-minute count times. On January 14, 2010, CBFO issued approval for the NABC to operate at 20-minute count times when assaying drums, based on successful completion of PDP Cycle 16B. The PDP box cycle (B9A) was ongoing at the time of Audit A-10-01 and the NABC submitted data obtained at both the 60 and 20-minute count times. According to the scoring report and CBFO authorization letter issued in February 2010, the NABC passed all criteria at both counting times and therefore has met all conditions examined during Audit A-10-01 to demonstrate that the system is adequate, satisfactory, and effective in meeting CBFO requirements.

DTC has not been performed at SRS since Audit A-10-01, but CCP anticipates performing additional DTC at SRS and therefore intends to maintain the capability. The drum turntable with probe jug ensuring measurement geometry is considered a mobile piece of equipment and is currently in storage. Personnel qualification, the status of operating procedures, and the calibration status of the DTC probe were verified.

Overall, the audit team concluded that both NDA and DTC activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.8 Performance Demonstration Program

SRS-CCP had discontinued participation in the PDP for HSG since the analyses are now performed at INL. The soils/gravel analyses are also being performed at INL. CCP sought and received approval for performing PDP box measurements using both the 60- and 20-minute count times. For additional information, see section 5.4.7.

5.4.9 WIPP Waste Information System/Waste Data System

The audit team evaluated implementation of the CCP TRU Waste Certification and WWIS/WDS data entry procedure for data entry using the WWIS/WDS data entry spreadsheet. The evaluation included data population of the spreadsheet, review of data entry, waste certification by the Waste Certification Official (WCO), submittal for WWIS review/approval, review of shipping packages, and records submittal. The audit team reviewed RH WWIS/WDS data packages for one canister (BCL0030) with three internal containers (BC0090, BC0091, BC0124), and CH WWIS/WDS data packages for two drums (SR216387, SR513904). No concerns were identified.

Overall, the WWIS/WDS activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.10 Flammable Gas Analysis

The audit team evaluated flammable gas sampling and analysis operations at SRS-CCP by examining sampling and analysis equipment, observing sampling and analysis operations, conducting personnel interviews, and reviewing selected BDRs.

Three BDRs, SR10FG3007, SR10FG3039, and SR10FG3048, were reviewed against DOE/WIPP-06-3345, Rev. 3.2, and were found to be satisfactory. Initial and continuing calibrations, determination of minimum detection limit (MDL), record management, container analysis via WIPP TRAMPAC Evaluation Software (WTES) in the WDS, and personnel qualification were verified. Laboratory notebooks, standard certification and M&TE certification were found to be compliant.

Overall, flammable gas sampling and analysis activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.11 Container Management

Container management activities were evaluated by a walk-through of SRS container storage areas, examination of shipping documents, and interview with the CCP Container Management Specialist (CMS). SRS personnel are trained to CCP Container Management Procedure CCP-TP-035 and perform the movement and storage of containers. The CCP CMS verifies these activities. Tracking of containers is performed by the CMS by obtaining container numbers of stored containers in the field, then locating the containers in the CMS and CCP databases. Waste manifests for a CH outgoing shipment and a RH outgoing shipment were verified compliant by the audit team. Separate storage of containers with NCRs from containers without NCRs was verified. Storage of containers ready for shipment was verified to be satisfactory to preclude ineligible containers from being shipped to WIPP.

Overall, the container management activities were determined to be adequate, satisfactorily implemented, and effective.

5.5 TRUPACT-II Operations/Waste Certification/Transportation

The audit team evaluated transportation activities performed at the SRS by CCP. The evaluation included observation of empty TRUPACT-II receipt, TRUPACT-II maintenance, SWB integrity, payload preparation operations, and TRUPACT-II loading for shipments SR 100062 and 100061. Also observed was an empty RH-TRU 72B trailer receipt, maintenance, and canister container integrity for RH payload BCL0033, which was being loaded into Cask 00-05 and onto Trailer RH0006 for shipment SRR 10006.

The audit team interviewed personnel; observed receipt and maintenance of empty transport vessels, payload preparation and container integrity; observed loading of TRUPACT-II and RH-TRU 72-B shipping vessels; examined shipping documentation;

verified M&TE calibration; examined personnel training and qualification documentation; and observed WCO and Transportation Certification Official activities.

Overall, transportation activities were determined to be adequate, satisfactorily implemented, and effective.

6.0 CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify conditions adverse to quality (CAQ) and document such conditions on corrective action reports (CARs).

Condition Adverse to Quality (CAQ) – An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, nonconformances, and technical inadequacies.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, regulatory compliance demonstration, or the effective implementation of the QA program.

Two CAQs necessitating the generation of two CARs resulted from this audit, both in the area of CCP Records. One CAR was transmitted to SRS-CCP and one CAR was transmitted to WIPP Records Management Services under separate cover.

CAR 11-006

During the audit, it was identified that the form provided to complete the RIDS is not a controlled form as required in QAPD Section 1.4.2: "Controls shall be established and maintained to identify the current status or revision of controlled documents and forms." The form provided in WP 15-RM3002 is intended as a DOE controlled form, and numbered as such, but it has been modified from the original form.

This form is provided by WRMS and was determined that it is their responsibility to address this CAR.

CAR 11-007

During the audit, CCP Training records were found to be incomplete (i.e., boxes not checked, dates missing, headers from qualification cards missing, pages not superseded, pages numbered incorrectly, blanks not marked N/A). Records are to be complete per CCP-QP-008, section 4.4.1 "Blank spaces are filled in where information is required to be entered making the document complete. Not Applicable (N/A) is entered in spaces where information is not applicable or as otherwise indicated."

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. The audit team members and the Audit Team Leader (ATL) evaluate the CAQs to determine if they are significant.

Once a determination is made that the CAQ is not significant, the audit team member, in conjunction with the ATL, determines if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit. Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as a CDA according to the definition below.

CDAs – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence. Correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to correct a procedure (isolated), one or two forms not signed or not dated (isolated), and one or two individuals that have not completed a reading assignment.

One CDA was identified during the audit.

CDA 1

The audit team noticed that the calibration due date for a pressure indicator in the M&TE database was not consistent with the due date specified in the certificate. The concern was corrected during the audit as sufficient documentation (i.e., historical calibration records, manufacturer's recommendation, revised calibration certificate by the calibration lab, and updated M&TE record from CCP) was reviewed and found acceptable.

6.3 Observations

During the audit, the audit team may identify potential problems that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Observations using the following definition.

Observation – A condition that, if not controlled, could result in a CAQ.

Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the condition appropriately.

The following Observations were identified during the audit.

Observation 1

During the audit, it was identified that the form provided by WRMS to complete the RIDS is not a controlled form as required in the Quality Assurance Program Document,

section 1.4.2. The form is incorrect and is being used by CCP Records. A CAR was issued to WRMS (CAR-11-006) under separate cover letter.

Observation 2

Observation 2 concerns the CCP RH RIDS. The method of validation listed for item number 18(a) is incorrect. This signature of validation is listed as the Waste Operations Operator Mechanic instead of the Waste Certification Official. Referencing a specific person/position to perform the validation is not required.

6.4 Recommendations

During the audit, the audit team may identify suggestions for improvement that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Recommendations using the following definition.

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the condition appropriately.

The audit team presented one Recommendation to SRS/CCP for management consideration.

Recommendation 1

The audit team recommended that changes be made to the three AK Summary Reports (CCP-AK-SRS-008, CCP-AK-SRS-009, and CCP-AK-SRS-510) reviewed during the audit for the purposes of clarity and consistency. The recommended changes are not data-quality affecting.

7.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit

Attachment 2: Summary Table of Audit Results

Attachment 3: Listing of Audited Documents

Attachment 4: Processes and Equipment Reviewed During Audit

PERSONNEL CONTACTED DURING THE AUDIT

PERSONNEL CONTACTED DURING AUDIT A-11-01				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Adams, James	VEE;NFT/CCP	X	X	
Almanza, Christian	CCP NDA;WTS/CCP	X	X	
Anaye, Edward	MLU;CCP		X	
Beeler, Dewitt	FM SWMF; SRNS	X		
Billett, Michele	Training Coordinator; CCP Training		X	
Blackwell, Denise	Records Analyst;SRS/CCP	X	X	
Cannon, Val	CCP QA Manager; WTS/CCP	X	X	
Cantu, Adela	CCP SPM;WTS/CCP		X	X
Carlson, Tim	NDA;MCS		X	
Crapse, Bert	TRU Waste Program Mgr.; DOE SR	X		
Davis, Will	NFT/Container Management;CCP		X	
Fisher, A J	CCP Senior Technical Advisor;CCP	X	X	X
Fussel, Buddy	SRS/CCP VPM;SRS/CCP	X	X	X
Gelderman, Byron	RTR Operator;MCS/CCP		X	
Gilmour, John	Director SWM;SRNS	X		X
Gomez, Chris	NCR/CCP Quality Assurance;CCP QA	X	X	X
Harrison, Jeff	AKE;CCP/TECH SPECS		X	
Harvill, Joe	NDA & DTC Lead;WTS/CCP	X	X	
Hasty, Jeff	Solid Waste;SRWS	X		X
Hinojos, Felicia	CCP Document Services Manager;CCP		X	

PERSONNEL CONTACTED DURING AUDIT A-11-01				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Huff, Andrea	RTR Operator;MCS/CCP		X	
Johnson, Natalia	Chemist/FGA Operator; SRS/CCP		X	
Kirkes, Creta	RCT/WCOM/WCA; WTS/CCP		X	
Martin, Ryan	Records Analyst;CCP Training		X	
McCoy, David	RTR Lead Operator; MCS/CCP	X	X	X
Miles, Shane	CCP VPM; CCP	X	X	
Morgan, Tom	DOE CCP Manager;DOE/CBFO	X	X	X
Muse, Steve	CCP Quality Assurance Engineer; WTS/CCP	X	X	
Papp, Michael	AKE;Tech Specs/CCP		X	
Pearcy, Mark	SPM;WTS/CCP	X	X	X
Pearcy, Sheila	CCP Records Manager; CCP Records/Stoller	X	X	X
Pennala, Eric	MCS GM; MCS			X
Peters, Kevin	AKE;Tech Specs/CCP		X	
Ploetz, D.K.	CCP Manager; WTS/CCP	X		
Porter, Larry	CCP Training Manager;CCP Training	X	X	X
Punchios, Sheri	CCP Records Clerk;CCP Records/Stoller		X	
Quintana, Irene	SPM;WTS/CCP	X	X	X
Ramirez, Mike	WCO; WTS/CCP		X	
Remington, Don	NDA/Lead Operator;MCS		X	
Rigby, Brandon	CCP/MLU/TCO;CCP		X	

PERSONNEL CONTACTED DURING AUDIT A-11-01				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Schoen, Jim	AKE;Tech Specs/CCP		X	
Sensibaugh, Michael	SRS/CCP Project Manager; WTS/CCP	X	X	X
Shepley, Todd	NDA Lead Operator;CCP/MCS	X	X	X
Simmons, Craig	SRS/CCP SPM; WTS/CCP	X	X	X
Simmons, J. Michael	DOE-SR;Solid Waste Team Lead			X
Stepzinski, Joe	SRS VPM;CCP		X	
Thompson, Joel	FGA/HSG Operator/ITR; NFT/CCP	X	X	X
Valdez, Larry	NDA;MCS		X	
Villanueva, Moe	Oversight; DOE	X		
Wade, Louis	CCP QA;WTS/CCP	X	X	X
Watson, Lisa	AKE;LANL-CO	X	X	
Watson, Ronald	DTC;MCS		X	
Wilson, Jay	SW PM;SRNS	X		
Wooldridge, F. D.	Shipping Coordinator; SRNS/MLU;CCP		X	
Wachter, Joe	MCS/Tech Dir.; MCS	X	X	

Summary Table of Audit Results

Documents	Concern Classification				QA Evaluation		Technical
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Activity							
Acceptable Knowledge				1	A	S	E
Headspace Gas		1			A	S	E
Real-Time-Radiography					A	S	I*
Visual Examination					A	S	E
Project Level V&V					A	S	E
Nonconformance Reporting					A	S	E
Training					A	S	E
Records	2*		2		A	S	E
WWIS/WDS					A	S	E
Nondestructive Assay					A	S	E
Dose-To-Curie					A	S	E
Transportation					A	S	E
Flammable Gas Analysis					A	S	E
TOTALS	2	1	2	1	A	S	E

Definitions

E = Effective
S = Satisfactory
I = Indeterminate
M=Marginal

CAR = Corrective Action Report
CDA = Corrected During Audit
NE = Not Effective
Obs = Observation

Rec = Recommendation
A = Adequate
NA = Not Adequate

*RTR – all activities related to RTR were determined to be adequate except for those activities associated with the LCNDE

*Records – CAR 11-006 was issued to WRMS/CAR 11-007 was issued to CCP Records

LISTING OF AUDITED DOCUMENTS

	Document No.	Document 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-RH Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)
9.	CCP-QP-002	CCP Training and Qualification Plan
10.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
11.	CCP-QP-008	CCP Records Management
12.	CCP-QP-011	CCP Laboratory Logbooks
13.	CCP-QP-016	CCP Control of Measuring and Testing Equipment
14.	CCP-QP-021	CCP Surveillance Program
15.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
16.	CCP-QP-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
17.	CCP-TP-001	CCP Project Level Data Validation and Verification
18.	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
19.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization
20.	CCP-TP-005	CCP Acceptable Knowledge Documentation
21.	CCP-TP-028	CCP Radiographic Test and Training Drum Requirements
22.	CCP-TP-030	CCP TRU Waste Certification and WWISWDS Data Entry
23.	CCP-TP-033	CCP Shipping of CH TRU Waste
24.	CCP-TP-035	CCP Container Management
25.	CCP-TP-050	CCP Mobile Segmented Gamma Scanner Calibration Procedure
26.	CCP-TP-051	CCP Mobile Segmented Gamma Scanner Operation
27.	CCP-TP-052	CCP Mobile Segmented Gamma Scanner Data Reviewing, Validating, and Reporting
28.	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
29.	CCP-TP-054	CCP Adjustable Center of Gravity Lift Fixture Preoperational Checks and Shutdown
30.	CCP-TP-055	CCP Varian Porta-Test Leak Detector Operations
31.	CCP-TP-056	CCP-HSG-Performance Demonstration Program
32.	CCP-TP-058	CCP-NDA-Performance Demonstration Program
33.	CCP-TP-066	CCP Radiography Screening Procedure for Prohibited Items
34.	CCP-TP-074	CCP Large Container Non-Destructive Examination (LCNDE) Operating Procedure
35.	CCP-TP-082	CCP Preparing and Handling Waste Containers for HSG Sampling
36.	CCP-TP-086	CCP CH Packaging Payload Assembly
37.	CCP-TP-087	CCP Scale Operations
38.	CCP-TP-093	CCP Sampling of TRU Waste Containers
39.	CCP-TP-098	CCP Installation of the NucFil Headspace Sample Port
40.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation
41.	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination
42.	CCP-TP-136	CCP Standardized Prohibited Item Remediation

LISTING OF AUDITED DOCUMENTS

	Document No.	Document Title
43.	CCP-TP-138	CCP Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure
44.	CCP-TP-139	CCP in Situ Object Counting System Nondestructive Assay Operating System
45.	CCP-TP-145	CCP RTR#4 Operating Procedure
46.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
47.	CCP-TP-163	CCP Evaluation of Waste Packaging Records for Standard Visual Examination of Records
48.	CCP-TP-180	CCP Analytical Sample Management
49.	CCP-TP-189	CCP Box Segmented Gamma System (BSGS) Operating Procedure
50.	CCP-TP-190	CCP Box Segmented Gamma System (BSGS) Calibration Procedure
51.	CCP-TP-191	CCP Box Neutron Assay System (BNAS) Operating Procedure
52.	CCP-TP-192	CCP Box Neutron Assay System (BNAS) Calibration Procedure
53.	CCP-TP-193	CCP Data Reviewing, Validating, and Reporting Procedure for the Nondestructive Assay Box Counters
54.	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
55.	CCP-TP-504	CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste
56.	CCP-TP-505	CCP Removable Lid Canister Loading
57.	CCP-TP-506	CCP Preparation of the RH TRU Waste AK Characterization Reconciliation Report
58.	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic Waste
59.	CCP-TP-509	CCP Remote-Handled Transuranic Container Tracking
60.	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry
61.	DOEWIPP-06-3345	Waste Isolation Pilot Plant Flammable Gas Analysis

Processes and Equipment Reviewed During Audit A-11-01 of the SRS-CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
NEW PROCESSES OR EQUIPMENT				
1RR4	Real-time Radiography Procedure – CCP-TP-053 and CCP-TP-145 Description – RTR-4 Standard large box 2s (SLB2s) – (initial certification is for the characterization of SLB2s)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
TBD	Real-time Radiography Procedure – CCP-TP-053 and CCP-TP-074 Description – Large Container Non-Destructive Examination (LCNDE) Unit – standard waste boxes (SWBs) and SLB2s	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	NO	NO
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
The following were evaluated for recertification during CBFO Audit A-11-01				
1NABC1	Nondestructive Assay Procedures – CCP-TP-189 and CCP-TP-191 Description – Box Segmented Gamma System (BSGS) and Box Neutron Assay System (BNAS)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	N/A	YES
1RR3	Real-time Radiography Procedure – CCP-TP-053 Description – RTR-15, 55-gallon drums (PAD 4)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
1RR4	Real-time Radiography Procedure – CCP-TP-053 and CCP-TP-145 Description – RTR-4, 55-gallon drums and standard waste boxes (SWBs)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
1RHVE1	Visual Examination Procedure – CCP-TP-500 Description – Visual Examination Technique (VET) (video/audio)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES

Processes and Equipment Reviewed During Audit A-11-01 of the SRS-CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
VISUAL	Visual Examination Procedure – CCP-TP-113 Description – VE QC Check for RTR, VE in lieu of RTR, VET for Retrievably Stored Waste	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
1DTC1	Dose-to-Curie Procedure – CCP-TP-504 Description – Radiological Characterization	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	N/A	YES
N/A	Headspace Gas Sampling Procedure – CCP-TP-093 Description – CCP Sampling of TRU Waste Containers using SUMMA® Canisters	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	N/A
1HG2	Flammable Gas Analysis Procedure – DOE/WIPP-06-3345 Description – Transportation Requirement	All	N/A	N/A
N/A	Acceptable Knowledge (AK)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
N/A	Data Generation and Project Level Validation and Verification (V&V)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
N/A	WIPP Waste Information System/Waste Data System (WWIS/WDS)	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	YES	YES
LIST OF DEACTIVATED EQUIPMENT				
1SG1	Nondestructive Assay Procedure – CCP-TP-051 Description – Mobile Characterization Systems (MCS) Segmented Gamma Scanner (SGS)	None	N/A	N/A