

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: SEP 19 2014

**REPLY TO
ATTN OF:** CBFO:QAD:DSM:RMS:14-1316:UFC 2300.00

SUBJECT: Interim Audit Report A-14-19, LANL/CCP TRU

to: David J. Nickless, LAFO

The Carlsbad Field Office (CBFO) conducted annual Recertification Audit A-14-19, Los Alamos National Laboratory Central Characterization Program (LANL/CCP) Transuranic (TRU) Waste Characterization and Recertification, August 19-21, 2014. The interim audit report is attached.

The audit team concluded that, overall, the LANL/CCP programs evaluated are adequate relative to the flow-down of requirements and the technical activities evaluated are satisfactorily implemented and effective in all areas.

The CBFO identified no conditions adverse to quality as a result of the audit. The audit team identified one observation and offered three recommendations to LANL/CCP management for consideration.

If you have any questions or comments concerning the interim audit report, please contact me at (575) 234-7491.



Dennis S. Miehl
Senior Quality Assurance Specialist

Attachment



David J. Nickless

-2-

cc w/attachment:

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WWIS Database Administrators	ED
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*ED denotes electronic distribution

U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

INTERIM AUDIT REPORT

OF THE

LOS ALAMOS NATIONAL LABORATORY
CENTRAL CHARACTERIZATION PROGRAM

LOS ALAMOS, NEW MEXICO

AUDIT NUMBER A-14-19

August 19 – 21, 2014

TRU WASTE CHARACTERIZATION AND RECERTIFICATION



Prepared by: *R. Castello for Berry Pace*
Berry D. Pace, CTAC
Audit Team Leader

Date: 9/17/14

Approved by: *Michael R. Brown*
Michael R. Brown, Director
CBFO Quality Assurance Division

Date: 9/18/14

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-14-19 was conducted to evaluate the continued adequacy and effectiveness of established programs for transuranic (TRU) waste characterization and transportation activities performed for the Los Alamos National Laboratory (LANL) by the Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP). The audit team evaluated the programs, procedures, and processes for characterizing and transporting contact-handled (CH) Summary Category Group (SCG) S4000 soils/gravel and SCG S5000 debris wastes, excluding wastes processed through the Waste Characterization, Reduction, and Repackaging Facility (WCRRF). SCG S3000 waste was not evaluated during this audit because the characterization activities associated with TRU waste disposition of SCG S3000 and all waste processed at the WCRRF were suspended. (Reference: Memorandum CBFO:NTP:JRS:MAG:14-1947, dated July 16, 2014.) Upon completion of the investigation and the implementation of required corrective actions, the CBFO will conduct an audit to re-evaluate SCG S3000 waste characterization activities at LANL/CCP. A final audit report will be submitted to the New Mexico Environment Department (NMED) prior to lifting the suspension of waste characterization activities for SCG S3000. The audit was conducted relative to the requirements of 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)*, and the *Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*.

Audit activities were conducted at LANL facilities in Los Alamos, New Mexico, and at the Skeen-Whitlock Building in Carlsbad, New Mexico, August 19-21, 2014. Overall, the audit team concluded that the LANL/CCP technical and quality assurance (QA) programs evaluated were adequately established for compliance with applicable upper-tier requirements, effectively implemented, and successful in achieving the desired results.

The audit team identified four concerns during the audit. One concern was identified as an Observation in the area of acceptable knowledge (AK) and dealt with lacking the identification of one container in each waste stream that was removed from the waste stream during characterization (see section 6.3). The remaining concerns were in the areas of AK and real-time radiography (RTR) training and resulted in three recommendations submitted to management (see section 6.4).

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the following LANL/CCP programs and processes for TRU waste characterization, certification, and transportation.

General

- Results of Previous Audits
- Changes in Programs or Operations
- New Programs or Activities Being Implemented
- Changes in Key Personnel

Quality Assurance

- Personnel Qualification and Training
- Nonconformances
- Records

Technical

- Acceptable Knowledge (AK)
- Real-time Radiography (RTR)
- Visual Examination (VE), including the Off-site Source Recovery Program (OSRP)
- Nondestructive Assay (NDA), including the Performance Demonstration Program (PDP) (refer to S-14-44 Surveillance Report)
- Generation and Project-Level Data Validation and Verification
- Container Management
- WIPP Waste Information System (WWIS)/Waste Data System (WDS)
- Waste Certification (e.g., Waste Stream Profile Form)

Transportation

- Container Management
- Flammable Gas Sampling and Analysis
- Shipping Documentation

The evaluation of TRU waste characterization and transportation activities was based on current versions of the following documents.

- Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF
- *CBFO Quality Assurance Program Document*, DOE/CBFO-94-1012
- *Nuclear Waste Partnership LLC Quality Assurance Program Description*, WP 13-1
- *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, DOE/WIPP-02-3122
- *Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*
- *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/LANL Interface Document, CCP-PO-012*
- Related technical and QA implementing procedures

2.2 Purpose

Audit A-14-19 was conducted to evaluate the degree of sustained adequacy and effective implementation of program requirements for the characterization, certification, and transportation of CH TRU SCG S4000 soils/gravel and SCG S5000 debris wastes for compliance with applicable upper-tier requirements.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Michael R. Brown	CBFO Quality Assurance Division Director
Dennis S. Miehls	Management Representative, CBFO Quality Assurance Division
Berry Pace	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Cindi Castillo	Auditor, CTAC
Katie Martin	Auditor, CTAC
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OBSERVERS

Norma Castaneda	CBFO TRU Sites and Transportation Division
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Steven Ross	DOE/Headquarters EM-43
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Ricardo Maestas	NMED
Steve Holmes	NMED
Coleman Smith	NMED
Ines Triay	NMED
Kenneth Licklitter	CTAC

4.0 AUDIT PARTICIPANTS

The LANL/CCP individuals involved in the audit process are identified in Attachment 1. A pre-audit meeting was held on August 19, 2014, in the LANL TA-50 Building 9002 in Los Alamos, New Mexico, and at the Skeen-Whitlock Building in Carlsbad, New Mexico. Daily management briefings were held with LANL/CCP management and staff to discuss audit progress and any concerns identified. A post-audit meeting was held on August 21, 2014, in the LANL TA-50 Building 9002 and at the Skeen-Whitlock Building.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that the LANL/CCP TRU waste characterization, certification, and transportation programs evaluated are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. The specific program elements and areas evaluated are described below. Attachment 2 contains a summary table of the audit results. Attachment 3 lists the program documents examined during the audit. Attachment 4 lists the processes and equipment evaluated.

5.2 General Activities

5.2.1 Results of Previous Audits

The audit team determined that the actions to address the concerns identified during CBFO Audit A-13-23 were effective in precluding recurrence. No similar instances were observed during this audit.

5.2.2 Changes in Programs or Operations

No significant changes in the CCP programs have occurred. However, operational activities related to SCG S3000 waste characterization were suspended at LANL since CBFO Audit A-13-23. (Reference: Memorandum CBFO:NTP:JRS:MAG:14-1947, dated July 16, 2014.)

5.2.3 New Programs or Activities Being Implemented

No new programs or activities have been implemented at LANL since CBFO Audit A-13-23.

5.2.4 Changes in Key Personnel

There were no significant changes made in key personnel at LANL since CBFO Audit A-13-23.

5.3 Quality Assurance Activities

The audit team evaluated the QA program elements for personnel qualification and training, nonconformance reporting, and QA records for compliance with applicable upper-tier requirements and the effectiveness of implementation. The evaluation results for each area audited are described below.

Personnel Qualification and Training

The audit team conducted interviews with responsible personnel and reviewed implementing procedure CCP-QP-002, Rev. 38, *CCP Training and Qualification Plan*, to determine the degree to which the procedure adequately addresses upper-tier requirements. Results of the review indicate that the procedure adequately addresses upper-tier requirements. Personnel training records associated with Visual Examination (VE) (including Off-site Source Recovery Program [OSRP]) Operator/Independent Technical Reviewer (ITR); Acceptable Knowledge Expert (AKE); Site Project Manager (SPM); Vendor Project Manager (VPM); Real-Time-Radiography (RTR) Operator/ITR; Flammable Gas Analysis (FGA) Operator/ITR; and personnel performing helium leak testing were examined to verify adherence to and implementation of associated requirements and to verify that personnel were appropriately trained/qualified. Record reviews included qualification cards and other pertinent qualification documentation, including attendance sheets/briefings on newly revised AK summaries for RTR and VE operators, capability demonstration tests and training container documentation, eye exams, and other items.

The procedure reviewed and objective evidence assembled provided evidence to confirm that the applicable requirements for personnel qualification and training are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

Nonconformance Reporting

The audit team reviewed implementing procedure CCP-QP-005, Rev. 24, *CCP TRU Nonconforming Item Reporting and Control*, to determine the degree to which the procedure adequately addresses upper-tier requirements. Results of the review indicate that the procedure adequately addresses upper-tier requirements. The audit team interviewed the CCP/Carlsbad Project Office Quality Assurance Engineer and randomly selected the following nonconformance reports (NCRs) for review:

NCR-LANL-0417-13, R0;
NCR-LANL-0422-13, R0;
NCR-LANL-0587-13, R1;
NCR-LANL-0678-13, R0;
NCR-LANL-0680-13, R0;

NCR-LANL-0681-13, R0;
NCR-LANL-0803-13, R0;
NCR-LANL-0804-13, R0;
NCR-LANL-0894-13, R1;
NCR-LANL-0908-13, R0;

NCR-LANL-0108-14, R0;
NCR-LANL-0115-14, R0;
NCR-LANL-0122-14, R0;
NCR-LANL-0127-14, R0;
NCR-LANL-0341-14, R0;
NCR-LANL-0348-14, R0;

NCR-LANL-0507-14, R0;
NCR-LANL-0532-14, R0;
NCR-LANL-0553-14, R0;
NCR-LANL-0600-14, R0;
NCR-LANL-0606-14, R4

The team concluded that deficiencies are being appropriately documented and tracked through resolution as required. Three of the NCRs selected (NCR-LANL-0587-13, R1; NCR-LANL-0908-13, R0; NCR-LANL-0115-14, R0) documented nonadministrative deficiencies first identified at the SPM level. As required, these NCRs were verified as having been reported to the Permittee within seven days, as required by the Permit. All the NCRs examined were verified to have been entered, managed, and tracked in the CCP Integrated Data Center/Nonconformance Report Log, and through the required reconciliation reporting mechanism.

The procedures reviewed and objective evidence assembled provided evidence to confirm that the applicable requirements for nonconformance reporting are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

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 audit team reviewed procedures CCP-QP-008, Rev. 22, *CCP Records Management*, and CCP-QP-028, Rev. 15, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*. Results of the review indicate that the procedures adequately address upper-tier requirements. Control of QA records was verified through review of the CH Records Inventory and Disposition Schedule (RIDS) dated July 30, 2014.

The procedures reviewed and objective evidence assembled provided evidence to confirm that the applicable requirements for records are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

5.4 Technical Activities

5.4.1 Acceptable Knowledge

The audit team reviewed the following CCP documents/procedures as they relate to AK to determine the degree to which they adequately address applicable upper-tier requirements:

- CCP-PO-001, Rev. 21, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-QP-005, Rev. 24, *CCP TRU Nonconforming Item Reporting and Control*

- CCP-QP-021, Rev. 10, *CCP Surveillance Program*
- CCP-TP-001, Rev. 21, *CCP Project Level Data Validation and Verification*
- CCP-TP-002, Rev. 26, *CCP Reconciliation of DQOs and Reporting Characterization Data*
- CCP-TP-005, Rev. 26, *CCP Acceptable Knowledge Documentation*
- CCP-TP-120, Rev. 16, *CCP Container Management*
- WP 13-QA.03, Rev. 23, *Quality Assurance Independent Assessment Program*

Results of the review indicate that the procedures adequately address upper-tier requirements.

The audit team examined AK Summary Reports and approved waste stream profile forms (WSPFs) for waste stream LA-MHD10.001, SCG S5000 debris associated with activities in Technical Area (TA)-50 described in AK Summary Report CCP-AK-LANL-004, Rev. 11, and waste stream LA-MSG04.001, SCG S4000 soils/gravel associated with activities in TA-21 described in AK Summary Report CCP-AK-LANL-010, Rev. 6. Additionally, the audit team examined portions of the AK record for the OSRP sealed source waste stream LA-OS-00-01.001 detailed in CCP-AK-LANL-008, Rev. 9. Review of SCG S3000 waste streams was not part of the audit scope.

The AK portion of this recertification audit was based upon the requirements contained in the WIPP Resource Conservation and Recovery Act permit and described in the Waste Analysis Plan (WAP) and based upon requirements of the WIPP WAC. The audit team reviewed documentation to support all applicable AK requirements, completing WAP C6-2 and C6-1 checklists and applicable WAC checklists, and compiling and reviewing objective evidence to demonstrate compliance.

The audit team also examined the following completed attachments for each stream as required by CCP procedure CCP-TP-005: Attachment 1, *AK Documentation Checklist*; Attachment 4, *AK Information List*; Attachment 5, *Hazardous Constituents List*; Attachment 6, *Waste Form, Waste Material Parameters, Prohibited Items and Packaging*, along with the justification for waste material parameter weight estimates; and Attachment 8, *Waste Container List*, with memoranda supporting the addition of containers to the waste stream as applicable.

The team examined numerous AK source documents and source document summaries supporting the information in the associated AK summary reports, including examples of discrepancies identified between the AK record, characterization activities, and resultant AK reevaluations.

The audit team also reviewed NCRs initiated to address prohibited items identified during RTR of waste drums. These included NCRs to address excess liquids, sealed containers greater than 4 liters, and the presence of impenetrable objects. The WAP-required traceability exercise was conducted for six containers in total from the two

streams. In addition to specific batch data reports (BDRs) for the drums and boxes selected, the team also examined container input forms, historical and current database records, AK accuracy reports, independent assessment results, and waste stream characterization checklists used to reconcile characterization results with the AK record for waste containers placed in a shipping lot. AK accuracy reports were also reviewed along with an example of a recent AK internal surveillance. Training records for AKE and SPM personnel were also examined by the audit team. All applicable elements of the C6-2 and C6-1 checklists were reviewed during the audit to assure that sufficient and relevant objective evidence had been compiled to demonstrate compliance.

In addition to the WAP requirements, the AK audit team examined the AK record to verify compliance with the requirements of the WIPP CH WAC associated with the ten tracked radionuclides and identification of the two most prevalent radionuclides. AK/nondestructive assay (NDA) memoranda were reviewed for all streams as applicable.

The team identified two AK-related concerns. The first concern regards the preparation of AK accuracy reports. AK accuracy reports were reviewed for the two waste streams examined during the audit: SCG S4000 waste stream LA-MSG04.001 and SCG S5000 waste stream LA-MHD09.001. Neither of the accuracy reports identified one container in each stream that was removed from the waste stream during characterization. It appears that these containers should have counted as a discrepancy for AK accuracy. The CCP process, however, only addresses discrepancies identified after the WSPF is approved. Procedure CCP-TP-005, section 4.6, describes this process, but is unclear regarding the initiation point at which discrepancies should be identified. Therefore, CCP should examine section 4.6 of CCP-TP-005 to determine how it can be clarified (see section 6.3, Observation 1).

The second concern involved a recommendation to develop a documented thread in the OSRP AK summary report for identifying relevant AK information as sealed source containers are added to the population without having to issue a revision to the AK summary report (see section 6.4, Recommendation 3).

With the exception of the concerns noted above, the procedures reviewed and objective evidence assembled provided evidence that the applicable requirements for acceptable knowledge activities are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results.

5.4.2 Project-level Data Validation and Verification

The audit team reviewed the following CCP procedures to determine the degree to which they adequately address project-level data validation and verification upper-tier requirements:

- *CCP-PO-001, Rev. 21, CCP Transuranic Waste Characterization Quality Assurance Project Plan*

- CCP-TP-001, Rev. 21, *CCP Project Level Data Validation and Verification*
- CCP-TP-002, Rev. 26, *CCP Reconciliation of DQOs and Reporting Characterization Data*
- CCP-TP-005, Rev. 26, *CCP Acceptable Knowledge Documentation*

The review of documented procedures indicates that the procedures adequately address upper-tier requirements.

The random selection of containers for SCG S5000 waste from waste streams LA-MHD01.001 and LA-MHD04.001 was reviewed, along with the quarterly repeat of data-generation level reviews. Both were determined to be compliant with project-level requirements. Training records for SPMs identified in selected WSPFs and BDRs were reviewed to verify required qualifications and training.

The following WSPF/Characterization Information Summaries (CIS) and associated BDRs were reviewed:

- WSPF LA-MHD01.001 with CIS Lots 417 through 425 and Lots 446 through 451
- WSPF LA-MHD04.001 with CIS Lots 26 through 46 and CIS Lots 55 through 70
- AK Source Document Summary for Waste Stream LA-MHD04.001 for discrepancy resolution

BDRs:

RTR

LA-HERTR-13-0111	LA-HERTR-13-0125	LA-HERTR-14-0034
LA-HERTR-14-0039	LA-RTR2-13-0121	LA-RTR2-14-0021

VE

LA13-OSR-VE-017	LA13-OSR-VE-024	LA14-OSR-VE-005
LAVE500504	LAVE500507	LAVE550128
LAVE550132		

NDA

LA13-OSR-CH-020	LA14-OSR-CH-003	LA14-OSR-CH-006
1LANDA1880	3LANDA0255	3LANDA0256
3LANDA0259		

The BDRs were examined to verify compliance with project-level data validation and verification per CCP-TP-001 for RTR, VE, OSRP, and NDA.

The procedures reviewed and objective evidence assembled provided evidence that the applicable requirements for project-level data validation and verification activities are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

5.4.3 Real-time Radiography

The audit team evaluated the adequacy, implementation, and effectiveness of LANL/CCP activities for characterization and certification of CH SCG S4000 soils/gravel and SCG S5000 debris wastes using the RTR characterization process. The audit team reviewed the following implementing procedures to determine the degree to which they adequately address upper-tier requirements.

- CCP-QP-002, Rev. 38, *CCP Training and Qualification Plan*
- CCP-TP-028, Rev. 9, *CCP Radiographic Test and Training Drum Requirements*
- CCP-TP-053, Rev. 14, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*
- CCP-TP-122, Rev. 5, *CCP RTR #2 Operating Procedure*
- CCP-TP-198, Rev. 8, *CCP HE-RTR Operating Procedure*

Results of the review indicate that the procedures adequately address upper-tier requirements.

The audit team examined personnel training and qualification documentation including RTR Operator/ITR qualification cards, test drum and training container documentation, and the associated List of Qualified Individuals (LOQI) dated July 31, 2014. The audit team also verified RTR operators received waste stream-specific AK summary briefings. The audit team evaluated RTR operator-required test and training drum audio/video media for five RTR operators and determined that all RTR operators were properly trained and qualified to perform their assigned tasks.

The audit team also observed RTR operations on the High-Energy (HE) RTR system in TA-54, building 54-578, including the RTR characterization scans for CH SCG S5400 waste containers 66850 and 69526. The team verified the use of current RTR operating procedures and AK summaries. Both RTR units contained the required hardware to effectively characterize CH SCGs S4000 soils/gravel and S5000 debris wastes. The audit team interviewed RTR operators and examined RTR operational logbooks LANL-NDE-RTR2-011 and LANL-NDE-HERTR02-004 for verification that logbook entries were correctly logged and reviewed weekly by the VPM, as required. The results of the interviews and review of the operational logbooks indicate that RTR operations are being performed in compliance with established operating procedures.

The audit team examined the following CH RTR BDRs:

HE RTR

LA-HERTR-13-0090

LA-HERTR-14-0034

LA-HERTR-14-0038

LA-HERTR-14-0039

LA-HERTR-14-0044

RTR2

LA-RTR2-13-0135

LA-RTR2-14-0013

In addition, audio/video media of selected containers were reviewed to verify the accuracy of data recorded on RTR data sheets.

The audit team identified two concerns resulting in recommendations offered to management (see section 6.4, Recommendations 1 and 2). The first recommendation dealt with the education requirement for a high school diploma or equivalency for radiography operators, which had been removed from CCP-QP-002, *CCP Training and Qualification Plan*. The second recommendation concerned DOE/WIPP-02-3122, Rev. 7.4, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, which is not listed in the Requirements section of CCP-QP-002, *CCP Training and Qualification Plan*. The WAC is referenced multiple times in the procedure (for example: Attachment 2, Test Drum Instructions for Contact-Handled Waste Drum).

The audit team also verified sustained corrective actions for CBFO Corrective Action Report (CAR) 13-051 issued from the previous audit. During the review of selected BDRs, the audit team found no indication of presence of batteries, which would be causal for an NCR to be written.

With the exception of the concerns previously described, the audit team determined the procedures reviewed and objective evidence assembled provided evidence that the applicable requirements for RTR activities are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results.

5.4.4 Visual Examination

The audit team evaluated the adequacy, implementation, and effectiveness of LANL/CCP activities to characterize and certify CH SCG S5000 debris waste using the VE characterization process, including support of the OSRP. The audit team reviewed the following CCP VE procedures to determine the degree to which they adequately address upper-tier requirements:

- CCP-PO-001, Rev. 21, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-QP-002, Rev. 38, *CCP Training and Qualification Plan*
- CCP-TP-069, Rev. 6, *CCP Sealed Source Visual Examination and Packaging*
- CCP-TP-113, Rev. 18, *CCP Standard Contact-Handled Waste Visual Examination*

Results of the review indicate that the procedures adequately address upper-tier requirements.

The audit team conducted interviews with responsible personnel and examined records documenting VE of debris waste, including the OSRP. The audit team examined training records for nine VE Operators/ITRs and confirmed the appointment of two

LANL/CCP VE Experts (VEEs), as well as ten OSRP VE Operators/ITRs and confirmed the appointment of three OSRP VEEs. The audit team verified that VE Operators, ITRs, and the VEEs were appropriately qualified as required.

LANL/CCP uses the two-operator method when conducting VE characterization activities. VE is performed by two qualified operators where the waste is visually examined and placed into containers. The audit team interviewed VE Operators and VEEs, toured the TA-55 PF4 facility, Room 128, and observed VE being performed on SCG S5000 waste in Glovebox GB150, from waste stream LA-MHD01.001 into container LA00000067670. The team verified the current revision of CCP-TP-113 (Rev. 18) was being used to perform VE and the current revision of the associated AK summary (CCP-AK-LANL-006, Rev. 13) was available for reference, as needed. The container scale (#100523) calibration was verified as current with a due date of June 11, 2015.

The team examined the following BDRs generated from the TA-55 facility:

LAVE550090	LAVE550095	LAVE550114
LAVE550115	LAVE550117	LAVE550118
LAVE550120	LAVE550121	LAVE550123
LAVE550127	LAVE550132	LAVE550140

The audit team determined that the BDRs were appropriately completed in accordance with requirements. No concerns were identified.

The audit team toured building 186 in TA-35 where the sealed source shipping components for the OSRP program are stored. The audit team verified torque wrenches were within calibration as identified on the affixed calibration labels and verified the torque wrenches were in the CCP measuring and test equipment (M&TE) calibration recall system. The audit team also verified the correct NUCFIL filters are being installed on the sealed source shipping components.

Shipping components are shipped to the respective site where sealed sources are visually examined and packaged by two trained and qualified CCP Sealed Source VE operators and shipped to LANL directly or to Nuclear Sources and Services Inc., in Houston Texas, for consolidation by two trained and qualified CCP Sealed Source VE operators then shipped to LANL. Sealed sources are shipped as material until they are received at LANL. Once the containers are shipped to TA-54 they are designated as waste where they can be shipped to WIPP for disposal.

Evaluation of the LANL OSRP included interviews with OSRP-qualified VE personnel, and review of the following OSRP VE BDRs:

LA13-OSR-VE-018	LA13-OSR-VE-023	LA14-OSR-VE-002
LA14-OSR-VE-003	LA14-OSR-VE-004	LA14-OSR-VE-005

The audit team determined that the BDRs were appropriately completed in accordance with requirements. No concerns were identified.

The procedures reviewed and objective evidence assembled provided evidence that the applicable requirements for VE activities are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results.

5.4.5 Nondestructive Assay

Nondestructive assay activities were evaluated August 26-27, 2014, and the results reported in CBFO Surveillance S-14-44.

5.4.6 WIPP Waste Information System (WWIS)/Waste Data System (WDS)

The audit team reviewed CCP procedure CCP-TP-030, Rev. 33, *CCP CH TRU Waste Certification and WWIS/WDS Data Entry*, to determine the degree to which it adequately addresses upper-tier requirements. Results of the review indicate that the procedure adequately addresses upper-tier requirements.

The audit team interviewed responsible personnel, examined related data, and observed entry of information into the WWIS/WDS by a Waste Certification Assistant and Waste Certification Official. Record reviews included container information summaries, pages from selected BDRs reflecting analyses values, WWIS/WDS Container Data Reports, and submittals for WWIS review and approval.

The procedure reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for data entry using the WWIS/WDS are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

5.4.7 Transportation / Container Management

The audit team conducted interviews with responsible personnel and reviewed the following procedures to determine the degree to which they adequately address upper-tier requirements:

- CCP-PO-003, Rev. 13, *CCP Transuranic Authorized Methods for Payload Control*
- CCP-QP-030, Rev. 9, *CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel*
- CCP-QP-032, Rev. 2, *CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel*
- CCP-TP-033, Rev. 22, *CCP Shipping of CH TRU Waste*
- CCP-TP-055, Rev. 5, *CCP Varian Porta-Test Leak Detector Operations*

- CCP-TP-086, Rev. 19, *CCP CH Packaging Payload Assembly*
- CCP-TP-120, Rev. 16, *CCP Container Management*
- WP 08-PT.01, Rev. 8, *Standard Waste Box Handling and Operations Manual*
- WP 08-PT.02, Rev. 9, *Ten-Drum Overpack Handling and Operations Manual*
- WP 08-PT.04, Rev. 7, *CH Packaging Trailer O&M Manual*

Results of the review indicate that the procedures adequately address upper-tier requirements.

Shipping activities at LANL have been suspended since February 2014. The audit team examined shipping packages LW140001 and LA140019 to verify shipping activities at LANL. Helium leak testing on the Inner Container Vessel (ICV) and Outer Container Vessel (OCV) were performed on both shipping packages due to the time frame of the shipping activity to verify shipment integrity (OCV leak testing is no longer required). Receipt of TRUPACT-II shipping containers, shipping container integrity checks, and payload preparation operations were documented in the shipping packages and no deficiencies were noted.

The audit team examined shipping documentation and verified that M&TE used was appropriately calibrated and used prior to calibration expiration dates. Transportation personnel training and qualification documentation was assessed, including operator qualifications, helium leak testing qualifications, and Transportation Certification Official qualification. All qualification requirements applicable to transportation personnel were met.

The audit team verified the procedures ensure accurate identification of container-specific information, and the accurate completion of the U.S. Environmental Protection Agency (EPA) Uniform Hazardous Waste Shipping Manifests.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for transportation/container management activities are adequately established for compliance with upper-tier requirements, effectively implemented, and satisfactory in achieving the desired results. No concerns were identified.

5.4.8 Flammable Gas Sampling and Analysis

Flammable gas sampling and analysis are performed in accordance with DOE/WIPP 06-3345, Rev. 6, *Waste Isolation Pilot Plant Flammable Gas Analysis*, which was confirmed to be used by LANL/CCP personnel for flammable gas testing. The audit team performed a walkthrough of the flammable gas analysis (FGA) drum sampling area, conducted inspections of sampling equipment, and observed sampling activities. The audit team inspected the FGA analytical instruments and supplies and they were found to be compliant. LANL/CCP uses two Hewlett-Packard gas chromatography/mass spectrometry systems that are equipped with thermal

conductivity detectors, mass spectral detectors, and a sample splitter that delivers samples to both detectors. All equipment and standards were verified to be current and within expiration dates.

Initial Calibration Reports LA13FG12040_ICAL, LA13FG2075_ICAL, and LA14FG2054_ICAL were examined. All initial calibrations were performed correctly and referenced in each FGA BDR. Minimum Detection Limit (MDL) spreadsheets from MDL studies examined were identified as LA10FG2090_MDL and LA13FG1210_MDL. Results were correctly calculated and the spreadsheets were referenced in each FGA BDR. Analytical BDRs LA14FG12014 and LA14FG12018 were examined and were complete and acceptable. ITR reviews and transmittal of the reports to CCP records were verified to be compliant with procedural requirements. Operational Logbook LANL-HSG-TRANS-019 for Unit 12 was reviewed and was determined to have been completed compliantly with requirements.

The Calibration COA-CCV Standard, ALM 018238, COA-ISTD, BFB CC309960, and COA ICAL ALM 060090 were all within expiration time frames and found acceptable. The audit team reviewed Surveillance #SUR-LANL-06-14. Also, one drum with NCR tag #LANL-0554-14 was brought in with the other drums to be sampled, but was segregated (not sampled) due to failing RTR. All records reviewed were prepared, reviewed, approved, and maintained through the RIDS system. Personnel training records and LOQIs were current.

The objective evidence assembled provided evidence that the applicable requirements related to flammable gas sampling and analysis activities, as prescribed in DOE/WIPP 06-3345, are effectively implemented and satisfactory in achieving the desired results. No concerns were identified.

CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify conditions adverse to quality (CAQs), as defined below, 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.

No CARs were identified during the audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. The Audit Team Leader (ATL) and audit team members 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 (CDA). Deficiencies that can be classified as CDA are those isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and those for which 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), or one or two individuals who have not completed a reading assignment.

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.

No CDAs were identified during the audit.

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 audit team identified the following Observation.

Observation 1

Two AK accuracy reports were reviewed for the two waste streams examined during the audit. These included LA-MSG04.001 (SCG S4000) and LA-MHD09.001 (SCG S5000). The review revealed that the accuracy reports lacked the identification of one container in each stream that was removed from the waste stream during characterization. It appears that these containers should have been identified as a discrepancy for AK accuracy. However, after discussion with responsible personnel it was determined that the current practice only addresses discrepancies identified after the initial approval of the WSPF. Section 4.6 of CCP-TP-005, *CCP Acceptable Knowledge Documentation*,

which describes this process, should be clarified as necessary to more accurately prescribe the current practice used.

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 identified the following three Recommendations.

Recommendation 1

CCP should consider reintroducing the education level of "high school diploma or equivalent" for RTR operators as a requisite requirement (best management practice) in CCP-QP-002, *CCP Training and Qualification Plan*.

Recommendation 2

CCP should consider including DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, in the Requirements section of CCP-QP-002, *CCP Training and Qualification Plan*, since it is cited a number of times in the procedure.

Recommendation 3

AK Summary Report CCP-AK-LANL-008, *Los Alamos National Laboratory Off-Site Source Recovery Project Sealed Sources*, Rev. 9, should be revised to document the connection between the VE BDRs, the CCP OSRP sealed source radiological characterization BDRs, and supporting AK information identified as "M series" source documents prepared for each container in the current population, and future additions to that population, similar to how CCP currently updates the AK summary for additional waste stream containers through the use of an add-container memorandum.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During Audit A-14-19
- Attachment 2: Summary Table of Audit Results
- Attachment 3: List of Audited Documents
- Attachment 4: Processes and Equipment Reviewed

PERSONNEL CONTACTED DURING AUDIT A-14-19				
NAME	TITLE/ORG	PRE-AUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Abeyta, C.	OSRP/LANL			X
Ams, D.	Acceptable Knowledge Expert/LANL-Carlsbad		X	
Aragon, S.	Operator/CCP/LANL		X	
Archuleta, L.	Operator/LANL NCO-2		X	
Armijo, C.	Training Records Analyst/CCP/TFE		X	
Auckland, S.	Acceptable Knowledge Expert/LANL-Carlsbad		X	
Baca, R.	Records Coordinator/NWP/CCP	X		X
Barton, T.	NDA/NWP/CCP/MCS	X		
Billett, M.	Training Coordinator/CCP/TFE	X	X	X
Brown, M.	QA Director/DOE/CBFO	X		X
Day, R.	OSRP/LANL	X	X	X
Ditsworth, D.	Operator/LANL NCO-2		X	
Elliot, A.	RTR Operator/CCP/LANL	X	X	X
Fesmire, C.	Observer/DOE/CBFO/NTP	X		X
Fitzgerald, R.	Acceptable Knowledge Expert/NWP/CCP	X	X	
Gallegos, M.	Operator/LANS NPI-7		X	
Greenwood, T.	Acceptable Knowledge Expert/NWP/CCP/Tech Spec	X	X	
Groover, T.	Site Project Manager/NWP/CCP	X	X	X
Hasselstrom, T.	Operator/NWP/CCP		X	
Holmes, S.	Observer/NMED	X		
Jagielski, R.	Operator/CCP/LANL	X	X	X
Jones, L.	QA Engineer/NWP/QA		X	
Kantrowitz, R.	Site Project Manager/NWP/CCP	X	X	
Kirkes, C.	WCO/NWP/CCP		X	
Kliphuis, T.	Observer/NMED	X		
Kryloubic, J.	Operator/LANS NPI-7		X	
Lacy, K.	Operator/LANS NPI-7		X	
Ledford, W.	QA Specialist/NWP/QA	X		X

PERSONNEL CONTACTED DURING AUDIT A-14-19				
NAME	TITLE/ORG	PRE-AUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Licklitter, K.	Observer/DOE/CBFO/CTAC	X		
Loechell, E.	Operator/CCP/LANL	X	X	
Maestas, R.	Observer/NMED	X		
Martinez, A.	M&TE/LANL		X	
Martinez, S.	Cognizant Engineer – NDE/NWP/CCP		X	X
McTaggart, K.	Transportation/NWP/CCP		X	
Miehls, D.	QA Representative/DOE/CBFO	X		X
Mojica, T.	VPM/NWP/CCP	X	X	
Nickless, D.	Legacy Manager/DOE/LA	X		X
Papp, M.	Acceptable Knowledge Expert/NWP/CCP/Tech Spec	X	X	
Pearcy, S.	Records Manager/NWP/CCP	X	X	X
Ramirez, M.	Manager/NWP/CCP			X
Rios, E.	Operator/NWP/CCP		X	
Ross, S.	Observer/DOE/EM-43	X		X
Sensibaugh, M.	Operations Manager/NWP/CCP	X	X	X
Sharif, F.	Manager/NWP/NTP	X		
Simmons, C.	Site Project Manager/NWP/CCP	X	X	X
Simmons, M.	Operator/NWP/CCP		X	
Simpson, K.	RTR Subject Matter Expert/NWP/CCP/NJT		X	
Soaterna, C.	Site Project Manager/NWP/CCP	X	X	X
Stepzinski, J.	Vendor Project Manager/NWP/CCP	X		
Stroble, J.	Acting Assistant Manager/DOE/CBFO	X		X
Thompson, J.	VEE/NWP/CCP	X	X	X
Triay, I.	Observer/NMED/FIU Contractor	X		
Trujillo, M.	Operator/LANS NPI-7		X	
Williams, C.	Operator/LANL NCO-2		X	
Witkowski, I.	OSRP/LANL	X	X	X

**Audit A-14-19
Summary Table of Audit Results**

QA / Technical Elements	Concern Classification				QA Evaluation		Technical Evaluation
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Acceptable Knowledge			1	1	A	S	E
Reconciliation of DQO's WSPFs					A	S	E
Project Level Data V & V					A	S	E
Real-time Radiography				2	A	S	E
Visual Examination					A	S	E
Container Mgmt / FGA					A	S	E
QA General C6-1 Training					A	S	E
QA General C6-1 NCRs / Records / Doc Control					A	S	E
QA General C6-1 WWIS / WDS					A	S	E
TOTALS	0	0	1	3	A	S	E

Definitions

E = Effective

S = Satisfactory

I = Indeterminate

M = Marginal

U = Unsatisfactory

CAR = Corrective Action Report

CDA = Corrected During Audit

NE = Not Effective

Obs – Observation

Rec = Recommendation

A = Adequate

NA = Not Adequate

Audit A-14-19
LIST OF AUDITED DOCUMENTS

	Document No.	Rev.	Document Title
1.	CCP-PO-001	21	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	27	CCP Transuranic Waste Certification Plan
3.	CCP-PO-003	13	CCP Transuranic Authorized Methods for Payload Control
4.	CCP-PO-005	24	CCP Conduct of Operations
5.	CCP-PO-012	15	CCP/LANL Interface Document
6.	CCP-QP-001	8	CCP Graded Approach
7.	CCP-QP-002	38	CCP Training and Qualification Plan
8.	CCP-QP-005	24	CCP TRU Nonconforming Item Reporting and Control
9.	CCP-QP-008	22	CCP Records Management
10.	CCP-QP-010	24	CCP Document Preparation, Approval and Control
11.	CCP-QP-014	5	CCP Quality Assurance Trend Analysis and Reporting
12.	CCP-QP-015	12	CCP Procurement
13.	CCP-QP-017	4	CCP Identification and Control of Items
14.	CCP-QP-018	11	CCP Management Assessment
15.	CCP-QP-019	7	CCP Quality Assurance Reporting to Management
16.	CCP-QP-021	10	CCP Surveillance Program
17.	CCP-QP-022	14	CCP TRU Software Quality Assurance Plan
18.	CCP-QP-023	4	CCP Handling, Storage, and Shipping
19.	CCP-QP-026	14	CCP Inspection Control
20.	CCP-QP-027	6	CCP Test Control
21.	CCP-QP-028	15	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
22.	CCP-QP-030	9	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
23.	CCP-QP-032	2	CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel
24.	CCP-TP-001	21	CCP Project Level Data Validation and Verification
25.	CCP-TP-002	26	CCP Reconciliation of DQOs and Reporting Characterization Data
26.	CCP-TP-005	26	CCP Acceptable Knowledge Documentation
27.	CCP-TP-028	9	CCP Radiographic Test Drum and Training Container Construction
28.	CCP-TP-030	33	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
29.	CCP-TP-033	22	CCP Shipping of CH TRU Waste
30.	CCP-TP-053	14	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
31.	CCP-TP-054	3	CCP Adjustable Center of Gravity Lift Fixture Preoperational Checks and Shutdown
32.	CCP-TP-055	5	CCP Varian Porta-Test Leak Detector Operations
33.	CCP-TP-058*	5	CCP NDA Performance Demonstration Program
34.	CCP-TP-059*	2	CCP Operating the SuperHENC Using NDA 2000
35.	CCP-TP-063*	15	CCP Operating the High Efficiency Neutron Counter Using NDA 2000
36.	CCP-TP-064*	7	CCP Calibrating the High Efficiency Neutron Counter and the SuperHENC Using NDA 2000
37.	CCP-TP-069	6	CCP Sealed Source Visual Examination and Packaging

* Documents reviewed during S-14-44

Audit A-14-19			
LIST OF AUDITED DOCUMENTS			
	Document No.	Rev.	Document Title
38.	CCP-TP-076*	1	CCP Operating the Mobile ISOCS Large Container Counter Using NDA 2000
39.	CCP-TP-077*	1	CCP Calibrating the Mobile ISOCS Large Container Counter Using NDA 2000
40.	CCP-TP-082	10	CCP Waste Container Filter Vent Maintenance and Operation
41.	CCP-TP-086	19	CCP CH Packaging Payload Assembly
42.	CCP-TP-101	7	CCP Off-Site Source Recovery Project Sealed Source Radiological Characterization
43.	CCP-TP-103*	12	CCP Data Reviewing, Validating & Reporting Procedure for the NDA Counters at LANL Using NDA 2000
44.	CCP-TP-113	18	CCP Standard Contact-Handled Waste Visual Examination
45.	CCP-TP-120	16	CCP Container Management
46.	CCP-TP-122	5	CCP RTR #2 Operating Procedure
47.	CCP-TP-138	2	CCP Execution of Long-Term Objectives for the Unified Flammable Gas Test Procedure
48.	CCP-TP-198	8	CCP HE-RTR Operating Procedure
49.	WP 13-1	34	Nuclear Waste Partnership LLC Quality Assurance Program Description
50.	DOE/CBFO 94-1012	11	CBFO Quality Assurance Program Document (QAPD)
51.	DOE/WIPP 02-3122	7.4	Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant
52.	DOE/WIPP 02-3183	9	CH Packaging Program Guidance
53.	DOE/WIPP 02-3184	14	CH Packaging Operations Manual
54.	DOE/WIPP 02-3220	14	CH Packaging Operations for High-Wattage Waste
55.	DOE/WIPP 06-3345	6	Waste Isolation Pilot Plant Flammable Gas Analysis
56.	WP 08-PT.01	8	Standard Waste Box Handling and Operations Manual
57.	WP 08-PT.02	9	Ten-Drum Overpack Handling and Operations Manual
58.	WP 08-PT.04	7	TRUPACT-II/HalfPACT Trailer O&M Manual
59.	WP 13-QA.03	23	Quality Assurance Independent Assessment Program
60.	WP 15-GM1002	2	Issues Management Processing of WIPP Forms

* Documents reviewed during S-14-44

Processes and Equipment Reviewed During Audit A-14-19 of the LANL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
11MILCC1	Nondestructive Assay** Mobile In-Situ Object Counting System (ISOCS) Large Container Counter (MILCC) Procedure(s) – CCP-TP-076, CCP-TP-077 and CCP-TP-103	Soils/Gravel (S4000)	N/A	YES
11RR2	Real-Time Radiography (RTR) Procedures – CCP-TP-053 and CCP-TP-028 Description – Real-Time Radiography (RTR) Mobile Characterization System [built by VJ Technologies] 55-gallon drums	Soils/Gravel (S4000) Debris (S5000)	YES	YES
11HERTR3	High Energy Real-Time Radiography (HERTR) Procedures CCP-TP-053 and CCP-TP-198 Description – High Energy Real-Time Radiography (RTR) [built by VJ Technologies] 55-gallon drums and SWBs	Soils/Gravel (S4000) Debris (S5000)	YES	YES
11VE1	CH Visual Examination Procedure – CCP-TP-113 Description – CH Characterization performed utilizing Visual Examination (VE) and Acceptable Knowledge (AK)	Soils/Gravel (S4000) Debris (S5000)	YES	YES
11VE2	Off-Site Source Recovery Program Procedure(s) – CCP-TP-069 and CCP-TP-101 Description – Characterization performed utilizing Visual Examination (VE) and Acceptable Knowledge (AK)	Debris (S5000)	YES	YES

** Processes and equipment reviewed during S-14-44

Processes and Equipment Reviewed During Audit A-14-19 of the LANL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
N/A	Acceptable Knowledge Procedure – CCP-TP-005 Description – Acceptable Knowledge (AK)	Soils/Gravel (S4000) Debris (S5000)	YES	YES
N/A	Data Verification and Validation Procedure(s) – CCP-TP-001, CCP-TP-002, CCP-TP-003, CCP-TP-103, CCP-TP-162	Soils/Gravel (S4000) Debris (S5000)	YES	YES
11HC1	Nondestructive Assay** Procedure – CCP-TP-063, CCP-TP-064, CCP-TP-103 Description – Canberra Industries High-Efficiency Neutron Counter (HENC) mounted in a transportation container	Soils/Gravel (S4000) Debris (S5000)	N/A	YES
11HC2	Nondestructive Assay** Procedure – CCP-TP-063, CCP-TP-064, CCP-TP-103 Description – Canberra Industries High-Efficiency Neutron Counter (HENC) mounted in a trailer	Soils/Gravel (S4000) Debris (S5000)	N/A	YES
11SHC1	Nondestructive Assay ** Procedure – CCP-TP-059, CCP-TP-064, CCP-TP-103 Description – Super High-Efficiency Neutron Counter mounted in a trailer, SWBs	Soils/Gravel (S4000) Debris (S5000)	N/A	YES

** Processes and equipment reviewed during S-14-44

Processes and Equipment Reviewed During Audit A-14-19 of the LANL/CCP

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
N/A	WIPP Waste Information System/Waste Data System (WWIS/WDS) Procedure – CCP-TP-030 Description – CH TRU Waste Certification and WWIS/WDS Data Entry	Soils/Gravel (S4000) Debris (S5000)	YES	YES
N/A	Transportation Procedure(s) – CCP-TP-054, CCP-TP-055, CCP-TP-086, DOE/WIPP-02-3184, DOE/WIPP-02-3220, DOE/WIPP-02-3183	Soils/Gravel (S4000) Debris (S5000)	N/A	N/A
N/A	Quality Assurance Program	Soils/Gravel (S4000) Debris (S5000)	N/A	YES

**** Processes and equipment reviewed during S-14-44**