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Mr. D. K. Ploetz, Manager
 Central Characterization Project
 Retrieval, Characterization and Transportation
 Washington TRU Solutions, LLC
 P.O. Box 2078
 Carlsbad, New Mexico 88221-2078

Subject: Transmittal of Audit Report A-11-24, CCP Transportation Activities

Dear Mr. Ploetz:

The Carlsbad Field Office performed Audit A-11-24 of the Central Characterization Project (CCP) Transportation Activities on September 20-22, 2011 at the Skeen-Whitlock Building in Carlsbad, New Mexico. The audit report is enclosed.

One condition adverse to quality was identified during the audit, resulting in Corrective Action Report 11-050, which will be transmitted to you under separate cover.

If you have any questions concerning the enclosed report, please contact me at (575) 234-7548.

Sincerely,

Courtland G. Fesmire, P.E.
 Quality Assurance Engineer

Enclosure

cc: w/enclosure

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M. Mullins, WTS	ED	M. Mager, CTAC	ED
M. Eagle, EPA	ED	WIPP Operating Record	ED
E. Feltcorn, EPA	ED	CBFO QA File	
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*ED denotes electronic distribution



U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

FINAL AUDIT REPORT

OF THE

CENTRAL CHARACTERIZATION PROJECT
ALL SITES TRANSPORTATION ACTIVITIES FOR CONTACT-HANDLED
AND REMOTE-HANDLED TRANSURANIC WASTE

CARLSBAD, NEW MEXICO

AUDIT NUMBER A-11-24

SEPTEMBER 20 – 22, 2011



Prepared by: *William J. Verret*
William J. Verret, CTAC
Audit Team Leader

Date: Oct. 3, 11

Approved by: *Courtenay Fesmire*
for R. Unger, CBFO
Quality Assurance Director

Date: 4 Oct 2011

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-11-24 was conducted to evaluate the adequacy, implementation, and effectiveness of transportation activities performed under the Central Characterization Project (CCP). The audit was conducted in Carlsbad, NM, September 20 – 22, 2011.

The evaluation included transportation activities performed by CCP at Los Alamos National Laboratory (LANL), the Savannah River Site (SRS), Idaho National Laboratory (INL), General Electric Vallecitos Nuclear Center (GEVNC), Oak Ridge National Laboratory (ORNL), Hanford National Laboratory (HNF), and Argonne National Laboratory-East (ANL-E).

The audit team concluded that overall, the CCP procedures reviewed were adequate relative to the flow-down of requirements from the *TRUPACT-II Safety Analysis Report*, the *TRUPACT-II Certificate of Compliance*, the *Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*, the *RH-72B Safety Analysis Report*, the *RH-72B Certificate of Compliance*, the *Remote Handled Transuranic Waste Authorized Methods for Payload Control (RH-TRAMPAC)*, the *TRUPACT-III Safety Analysis Report*, the *TRUPACT-II Certificate of Compliance*, and the *TRUPACT-III TRAMPAC*.

The audit team also concluded that the requirements associated with CCP Quality Assurance (QA) Program activities related to transportation were satisfactorily implemented and effective relative to the requirements of the CBFO *Quality Assurance Program Document (QAPD)*.

One condition adverse to quality (CAQ) was identified during this audit. No Observations were identified. One Recommendation was offered for management consideration.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of CCP plans and procedures related to waste transportation activities for shipment of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP). The team reviewed documentation and conducted personnel interviews to determine adequacy, implementation, and effectiveness of the following QA and technical processes related to the shipment of TRU waste:

Quality Assurance Activities

- Approved Procedures, Including Documentation, Preparation, Approval, and Control
- Personnel Qualification and Training

- Records/Records Inventory and Disposition Schedule
- Nonconformances and Corrective Actions
- Surveillances and Assessments
- Procurement
- Measuring and Test Equipment
- Data Analysis and Trending
- Inspection Control
- Conduct of Operations
- Quality Oversight

Technical Activities

- Packaging Operations, Waste Certification, and Shipping Activities
- Leak Testing
- Payload Loading
- Shipping Papers
- WIPP Waste Information System/Waste Data System (WWIS/WDS) Data Entry
- Gas Generation Testing
- Flammable Gas Analysis

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

- *CBFO Quality Assurance Program Document (QAPD), DOE/CBFO-94-1012*
- *TRUPACT-II Safety Analysis Report*
- *TRUPACT-II Certificate of Compliance*
- *Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*
- *RH-72B Safety Analysis Report*
- *RH-72B Certificate of Compliance*
- *Remote Handled Transuranic Waste Authorized Methods for Payload Control (RH-TRAMPAC)*
- *TRUPACT-III Safety Analysis Report*
- *TRUPACT-III Certificate of Compliance*
- *TRUPACT-III TRAMPAC*
- *CH Packaging Program Guidance, DOE/WIPP 02-3183*

- *CH Packaging Operations Manual, DOE/WIPP 02-3184*
- *CH Packaging Maintenance Manual, DOE/WIPP 02-3185*
- *CH Packaging Operations for High Wattage Waste, DOE/WIPP 02-3220*
- *Standard Waste Box Handling and Operations Manual, WP 08-PT.01*
- *Ten-Drum Overpack Handling and Operations Manual, WP 08-PT.02*
- *CH Packaging Trailer O&M Manual, WP 08-PT.04*
- *RH Packaging Program Guidance, DOE/WIPP 02-3283*
- *RH Packaging Operations Manual, DOE/WIPP 02-3284*
- *RH Packaging Maintenance Manual, DOE/WIPP-02-3285*
- *RH TRU 72-B Cask Uprighting Trailer Operations and Maintenance Manual, WP 08-PT.13*
- *TRUPACT-III Program Guidance, DOE/WIPP 11-3456*
- *TRUPACT-III Operations Manual, DOE/WIPP 11-3451*
- *Waste Isolation Pilot Plant Flammable Gas Analysis, DOE/WIPP 06-3345*
- *Quality Assurance Program Plan for TRUPACT-II Gas Generation Test Program, DOE/WIPP 01-3187*
- Applicable CCP implementing procedures

2.2 Purpose

Audit A-11-24 was conducted to evaluate the adequacy, implementation, and effectiveness of technical and QA processes related to the transportation activities governed by the CCP program.

3.0 AUDIT TEAM

Courtland Fesmire, PE	CBFO QA
William J. Verret	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Tommy Putnam	Auditor, CTAC
Rick Castillo	Auditor, CTAC
Norman Frank	Auditor, CTAC
Margie Martinez	Auditor, CTAC

4.0 AUDIT PARTICIPANTS

The individuals from CCP who were present at the pre-audit and post-audit meetings and who were contacted during the audit are identified by area of responsibility in Attachment 1. A pre-audit meeting was held at the Skeen-Whitlock Building in Carlsbad, NM, on September 20, 2011. The audit was concluded with a post-audit meeting held at the Skeen-Whitlock Building in Carlsbad, NM, on September 22, 2011.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that the applicable CCP transportation activities, as described in the associated CCP implementing procedures, were adequate, satisfactorily implemented, and effective for compliance with the requirements of the CH-TRAMPAC, the RH-TRAMPAC, the TRUPACT-III TRAMPAC, and CBFO upper-tier implementing manuals and guidance documents. Audit activities, including objective evidence reviewed, are described below. Attachment 2 contains the Summary Table of Audit Results. Attachment 3 contains a listing of CCP procedures that implement the appropriate TRAMPAC, QAPD, flammable gas testing, and gas generation testing requirements.

The audit team concluded that the CCP QA program, as related to transportation (QAPD Section 1.1), was satisfactorily implemented and effective.

5.2 Quality Assurance Activities

Approved Procedures (Including Document Preparation, Approval, and Control)

CCP personnel who perform work under the CCP Transportation Program are required to work to the latest CCP program procedures. These procedures are initiated and revised in accordance with CCP-QP-010, *CCP Document Preparation, Approval and Control*. The audit team verified that new and revised procedures met the format and review requirements of CCP-QP-10. Document Services ensures that required reviews, including CBFO required reviews, from program documents (e.g., CCP-PO-001) are designated in the Quality and Manufacturing Integrated System (Q&MIS) and completed before issue. Approved procedures are stored on a file transfer protocol (ftp) site accessible to all CCP personnel. The team verified that obsolete documents are handled per procedure and are removed from the ftp site, and that CCP Training and CCP Records are notified of any document cancellations.

The audit team concluded that the Approved Procedures requirements governing the procedures process (QAPD Section 1.4) were adequately addressed, satisfactorily implemented, and effective.

Personnel Qualification and Training

CCP personnel who perform transportation work under the CCP Program are trained and qualified to WIPP requirements in accordance with CCP-QP-002, *CCP Training and Qualification Plan*. Qualifications and training records, including qualification cards and certifications, were reviewed for Transportation Certification Official (TCO) personnel, Gas Generation Testing (GGT) personnel, Helium Leak Detection (HLD) personnel, and Waste Certification Official (WCO) personnel. Qualification cards were further reviewed for general and job-specific training requirements, proper preparation, and the presence of required signatures.

The audit team concluded that Personnel Qualification and Training process requirements (CBFO QAPD Section 1.2) were adequately addressed, satisfactorily implemented, and effective.

Records/Records Inventory and Disposition Schedule

CCP Facility Records Coordinators transmit records generated during the performance of transportation activities to CCP Records, in accordance with CCP-QP-008, *CCP Records Management*. The appropriate CCP personnel have access to CCP records in the event that corrections to QA records are needed. The audit team verified that CCP Records performs Records Inventory and Disposition Schedule (RIDS) activities properly, and records are produced, collected, corrected, and maintained in fire protected cabinets in accordance with the procedure. There were no electronic records for transportation activities.

The audit team found that CCP generates records during transportation-related activities, and files records through the generation, issuance and utilization of a RIDS. This process is performed according to CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*. The audit team verified that the Records Custodian performs an annual review and revision of the RIDS. The audit team reviewed the CCP RH and CH RIDS, both dated 8/15/11. Upon evaluation of the RIDS, the audit team verified that WIPP Records Management Services (WRMS) provides the final approving signature for the CCP RH and CH RIDS. Further, the audit team reviewed random transportation-related records listed on the current RH and CH RIDS. The following records were retrieved from the appropriate records files locations and reviewed during the audit:

- MA-CCP-0021-11
- SUR-INL-0002-11
- SUR-LANL-0005-11
- 2010 RHORNL DGL NCR Log Reconciliation Report
- 2010 CCP CAR Log
- CCP Shipment Packages LA110114, IN110381, and their associated documents.

The audit team concluded that Records/Records Inventory and Disposition Schedule process requirements (CBFO QAPD Section 1.4 and 1.5) were adequately addressed, satisfactorily implemented, and effective.

Nonconformances, Corrective Actions, and Corrective Action Management

CCP personnel who identify deficiencies and/or nonconformances that affect transportation activities ensure that nonconformance reports (NCRs) and corrective action reports (CARs) are generated in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*, and CCP-QP-006, *CCP Corrective Action*

Reporting and Control. The audit team reviewed the following transportation NCRs for this audit: NCR-INL-2032-10, NCR-INL-0503-11, NCR-INL-0542-11, NCR-LANL-2641-11, and NCR-SRS-2438-11.

The audit team verified that CCP has an NCR numbering and logging system that is satisfactory, that NCR processing meets requirements, that NCRs are closed per procedure, and that NCRs are satisfactorily handled as QA records. The audit team continued evaluations through review of the 2011 LANL Data Generation Level (DGL) NCR Log (CH), SRS Project Level (PL) NCR Log (CH), and the RHINL PL NCR Log. Further evaluations included review of the 2010 NCR Log Reconciliation Reports for INL (CH), INL-DGL (CH), RHORNL-DGL, and RHORNL-PL. All NCR Log Reconciliation Reports were found to meet procedural requirements. Corrective action reporting activities are performed by a CCP CAR Coordinator, who creates and maintains CAR Logs (for all sites) and a CAR Module (CARM), and performs CAR log activities according to procedural requirements. The audit team reviewed the only transportation-related CAR issued in the last year, CAR-CCP-0003-11. The CAR was verified to meet all procedural requirements.

CCP performs transportation corrective action management activities using CCP-QP-004, *CCP Corrective Action Management*. Corrective action activities were reviewed by way of documentation evaluations and personnel interviews. For the audited CAR, the audit team verified that significant CAQs are being screened by CCP QA in accordance with requirements, and that appropriate Trend Codes are assigned. The audit team verified the CAR contained a deficiency evaluation per procedural requirements. The CAR has been completed, and a corrective action plan (CAP) for the CAR was verified to be completed. For the NCRs reviewed, the audit team also verified that the CCP QA had reviewed the NCR for significant and recurring CAQs during trend reporting.

The audit team concluded that Nonconformances, Corrective Actions and Corrective Action Management process requirements (CBFO QAPD Section 1.3) were adequately addressed, satisfactorily implemented, and effective.

Surveillances and Assessments

CCP performs surveillances and assessments using CCP-QP-021, *CCP Surveillance Program*, and CCP-QP-018, *CCP Management Assessment*. The audit team verified that CCP transportation program surveillances and assessments were planned and submitted to the CCP QA Manager for concurrence; qualified individuals conducted the surveillance and assessments, reported results, and performed follow-up activities as required; the surveillance/assessment teams performed activities per procedure requirements; and a surveillance/assessment log (all sites) and schedule is properly maintained. The audit team verified that CCP managers periodically conduct transportation management assessments, resulting reports are prepared and signed by the assessment leader and submitted to the Site Project Manager (SPM) as required, proper notifications are completed, QA review is performed, documented, and signed, and management assessments are properly managed as QA records.

The audit team concluded that the Surveillance and Assessment process requirements (CBFO QAPD Sections 3.1 and 3.2.1) were adequately addressed, satisfactorily implemented, and effective.

Procurement

The audit team walked through the purchase requisition (PR) process with CCP personnel. The process is fully automated online and governed by CCP-QP-015, *CCP Procurement*. The CCP Graded QA Database and the Qualified Suppliers List (QSL) are checked by the requisitioner in the development of the PR. Required reviews and approvals are designated by the requisitioner. The online process ensures, and the audit team verified, that each review and approval is completed. CCP QA personnel develop the Source/Receipt Inspection Verification Sheet (S/RIVS) from the PR and statement of work (SOW). After the RIVS is approved by CCP QA, CCP QA approves the PR. The audit team verified that the RIVS was completed, signed, dated, and submitted to CCP. Complete records packages per CCP-QP-015 were verified to be properly filed in CCP Records.

The audit team concluded that the requirements governing Procurement (QAPD Section 2.3) were adequately addressed, satisfactorily implemented, and effective.

Measuring and Test Equipment

The audit team verified that CCP maintains a master database of measuring and test equipment (M&TE) in accordance with CCP-QP-016, *CCP Control of Measuring, Testing, and Data Collection Equipment*. One concern was documented for the lack of continuity between terms used in the procedure and the terms present in the database. This concern was dispositioned as Recommendation 1 (see section 6.4). The team determined that calibration and documentation of calibration of current and past M&TE used for transportation activities are acceptable. Instrument numbers were verified against the CCP M&TE listing, and calibration certificates were reviewed. A second concern was written to document the lack of a documented determination of a calibration frequency for each item. This concern was dispositioned as CAR 11-050 and is described in section 6.1.

The audit team concluded that the requirements governing Measuring and Test Equipment processes (QAPD Sections 2.4.5 through 2.4.7) were adequately addressed, satisfactorily implemented, and effective.

Data Analysis and Trending

The audit team verified that sites provided site-specific trend report and that CCP compiled those reports and data from small quantity sites to develop the CCP semi-annual trending reports as required by CCP-QP-014, *CCP Data Analysis and Trending*. These reports identify adverse trends and potential adverse trends and are provided to CBFO QA following approval by CCP management. The past five semi-annual reports were reviewed and found to be satisfactory. Two site-specific trend reports were also found to be satisfactory. The audit team verified that actions were taken for adverse

trends by reviewing CAR-CCP-0002 and CAR-CCP-0006 covering a trend and a recurring condition. The audit team verified these documents were in CCP Records and included in the appropriate RIDS.

The audit team concluded that the requirements governing Data Analysis and Trending (QAPD Section 1.3.3) were adequately addressed, satisfactorily implemented, and effective.

Inspection Control

Transportation-related inspection activities as detailed in CCP-QP-026, *CCP Inspection Control*, were verified via document review. All inspections are performed by CCP inspectors located at the site. The audit team reviewed several purchase orders (POs) for procurement of consumable items and verified that the S/RIVS had been completed by the CCP site inspectors and that inspection records were maintained in CCP Records. The need to check for suspect/counterfeit items (S/CIs) is documented in the PO and transferred to the S/RIVS.

The audit team concluded that the requirements governing Inspection Control (QAPD Sections 2.1.3 and 2.4) were adequately addressed, satisfactorily implemented, and effective.

Conduct of Operations

Conduct of operations activities for transportation activities covered under Procedure CCP-PO-005, *CCP Conduct of Operations*, were evaluated by document review and personnel interviews. The audit team verified that the Project Standing Order Index, Project Standing Orders, and site-specific Standing Orders were available as electronic files on the ftp site. The Project Standing Orders were also available in hard copy in the Skeen-Whitlock Building. The Standing Orders were incorporated into the procedures upon revision, where appropriate. The SPM quarterly review of Project Standing Orders has been satisfactorily completed. CCP-PO-005 Attachments 5 and 6 were being followed in the preparation of both project and site-specific Standing Orders.

Required reading for CCP transportation personnel was noted on initial qualification cards. In addition, the audit team verified that appropriate lessons learned were circulated via email for required reading and that individuals provided signed Attachments 8 for CCP Records to confirm completion of required reading.

The audit team concluded that the requirements for Conduct of Operations were adequately addressed, satisfactorily implemented, and effective.

Quality Oversight

The audit team verified that Quality Oversight activities for transportation are performed using CCP-QP-018, *CCP Management Assessments*. The team verified that CCP-PO-002, *CCP Transuranic Waste Certification Plan*, section 5, fulfills the requirements for a transportation QA plan as required by the CBFO QAPD.

5.3 Technical Activities

Each technical area audited is discussed in detail in the following sections. The method used to select objective evidence is discussed, the objective evidence used to assess compliance with the TRAMPAC and packaging documents is cited briefly, and the result of the assessment is provided.

Objective evidence to evaluate the implementation of associated transportation activities was selected and reviewed. Shipping batch data reports (BDRs), transportation records, and training documentation for CCP personnel were evaluated to ensure compliance with the CH and RH TRAMPAC documents. Flammable-gas and gas-generation BDRs were examined to ensure compliance with DOE/WIPP 06-3345, *Waste Isolation Pilot Plant Flammable Gas Analysis*, and the DOE/WIPP 01-3187, *Quality Assurance Program Plan for TRUPACT-II Gas Generation Test Program*.

The following CCP BDRs were provided to the audit team and were found to be acceptable:

- CH shipping: SR3110001 (TRUPACT-III), SR110004, SR110084, OR110006, OR110001, IN100645, IN1110381, LA100173, LA110118, RL110001, RL100080, and SR100048
- RH shipping: GER10011, AER10036, AER11030, ORR11001, ORR11004, INR11028, SRR11001
- Flammable gas: OR10FG4146, OR11FG4006, OR11FG4005_ICAL, OR11FG4008, IN10FG6163, IN11FG6108, IN11FG6066_ICAL, IN11FG6067_MDL, IN11FG9004_MDL, LA10FG2149, LA11FG2019, LA11FG2054_ICAL, LA11FG8099, RL10FG10068, RL11FG10095, RL11FF10056_ICAL, SR10FG3096, SR11FG3116, SR11FG3106_ICAL, SR11FG3023_MDL, and SR11FG1011-ICAL
- Gas generation: IN10GG2012, IN11GG2003, and IN11GG1001_ICAL

Packaging Operations, Waste Certification, and Shipping Activities

The audit team evaluated CCP implementation of the following DOE and CCP technical procedures used in controlling transportation activities:

- *TRUPACT-II Safety Analysis Report*
- *TRUPACT-II Certificate of Compliance*
- *Contact Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*
- *RH-72B Safety Analysis Report*
- *RH-72B Certificate of Compliance*
- *Remote Handled Transuranic Waste Authorized Methods for Payload Control (RH-TRAMPAC)*

- *TRUPACT-III Safety Analysis Report*
- *TRUPACT-III Certificate of Compliance*
- *TRUPACT-III TRAMPAC*
- *CH Packaging Program Guidance, DOE/WIPP 02-3183*
- *CH Packaging Operations Manual, DOE/WIPP 02-3184*
- *CH Packaging Maintenance Manual, DOE/WIPP 02-3185*
- *CH Packaging Operations for High Wattage Waste, DOE/WIPP 02-3220*
- *Standard Waste Box Handling and Operations Manual, WP 08-PT.01*
- *Ten-Drum Overpack Handling and Operations Manual, WP 08-PT.02*
- *CH Packaging Trailer O&M Manual, WP 08-PT.04*
- *RH Packaging Program Guidance, DOE/WIPP 02-3283*
- *RH Packaging Operations Manual, DOE/WIPP 02-3284*
- *RH Packaging Maintenance Manual, DOE/WIPP-02-3285*
- *RH TRU 72-B Cask Uprighting Trailer Operations and Maintenance Manual, WP 08-PT.13*
- *TRUPACT-III Program Guidance, DOE/WIPP 11-3456*
- *TRUPACT-III Operations Manual, DOE/WIPP 11-3451*
- *DOE/WIPP 06-3345, Waste Isolation Pilot Plant Flammable Gas Analysis*
- *DOE/WIPP 01-3187, Quality Assurance Program Plan for TRUPACT-II Gas Generation Test Program*
- *CCP-TP-030, CCP CH TRU Waste Certification and WWIS Data Entry*
- *CCP-TP-033, CCP Shipping of TRU Waste*
- *CCP-TP-055, CCP Varian Porta-Test Leak Detector Operations*
- *CCP-TP-083, CCP Gas Generation Testing*
- *CCP-TP-086, CCP CH Packaging Payload Assembly*
- *CCP-TP-138, Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure*
- *CCP-TP-507, CCP Shipping of RH TRU Waste*
- *CCP-TP-530, CCP RH TRU Waste Certification and WWIS Data Entry*

Objective evidence was reviewed to ensure transportation-related activities were adequately performed. BDRs were evaluated based on procedure requirements for packaging, certification, and shipment.

The audit team concluded that the transportation activities for Packaging Operations, Waste Certification, and Shipping activities were adequately addressed, satisfactorily implemented, and effective.

Leak Testing

The audit team examined the CH and RH shipping BDRs for helium leak testing to verify that leak testing activities were performed as required and that the results were acceptable. Training of leak test personnel was evaluated by review of training files and qualification cards.

The audit team concluded that Leak Testing activities were adequate, satisfactorily implemented, and effective.

Payload Loading

Payload loading activities were verified during the examination of the shipping BDRs.

The audit team concluded that the Payload Loading activities were adequate, satisfactorily implemented, and effective.

Shipping Papers

Shipping papers included as part of the shipping BDRs were examined and found to be complete and acceptable.

The audit team concluded that the Shipping Papers preparation was adequate, satisfactorily implemented, and effective.

WDS/WWIS Data Entry

Interviews were conducted with the CCP Waste Certification Official (WCO) and the CCP Waste Certification Assistant (WCA). The WCO and WCA performed demonstrations of WWIS data entry and retrieved WWIS data that verified WWIS data entry was being acceptably performed. Training and qualifications of the WCO and WCA was verified as compliant.

The audit team concluded that the WDS/WWIS Data Entry activities were adequate, satisfactorily implemented, and effective.

Gas Generation Testing

Gas generation BDRs were examined from work performed at INL (the only CCP site performing gas generation work). Initial calibration (ICAL) studies were reviewed, and gas generation BDRs were audited for compliance and completeness. All areas were found to be acceptable. Training was verified for gas generation operators and independent technical reviewers (ITRs). Long-term data reporting for the current gas generation operations was reviewed from the *Unified Flammable Gas Test Program Summary Report for Waste Stream ID-RF-S3114*.

The audit team concluded that the Gas Generation Testing activities were adequate, satisfactorily implemented, and effective.

Flammable Gas Analysis

Flammable gas analysis was audited by examination of BDRs produced at LANL, INL, SRS, HNF and ORNL. Training of operators and ITRs was verified through examination of training records. ICAL and minimum detection limit (MDL) activities were verified via examination of flammable gas BDRs.

The audit team concluded that the Flammable Gas Analysis activities were adequate, satisfactorily implemented, and effective.

One CAQ was identified during the audit. The audit team concluded that CCP transportation technical processes were 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 (CAQs) and document them on corrective action reports (CARs).

Condition Adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

One CAQ was identified as a result of this audit, resulting in the issuance of CAR 11-050, described below.

CAR 11-050

There was no calibration interval documentation in CCP Records. Current CCP practice is to take the calibration interval from the manufacturer's calibration certificate as the difference between the calibration date and the next calibration date. CCP personnel stated that this calculation is done mentally after each calibration, but it is not documented as required by Procedure CCP-QP-016, Rev. 15, section 4.5.1 [A.1, A.8, and A.9] and section 5.1.1 [D].

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 can, therefore, be a CDA. 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 CDA according to the definition below.

CDA – 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.

No CDAs were issued as a result of this 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.

No Observations were presented to CCP management as a result of this audit.

6.4 Recommendations

During the audit, the audit team may develop 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.

One Recommendation was presented to CCP management as a result of this audit, as described below.

Recommendation 1

There are some discrepancies between the procedure terminology and the database terminology for the M&TE. The database calls the “Calibration Expiration Date” the “Recall Date,” the “Property Tag Number” is called “Inventory Number” in the database, and “Recall Frequency” is not in the database as a distinct category, although all information to determine Recall Frequency is contained in the database. This information is required by CCP-QP-016, Rev. 15, sections 4.2.2[B], [C] and [I].

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Summary Table of Audit Results
- Attachment 3: Listing of Audited CCP Procedures

PERSONNEL CONTACTED DURING THE AUDIT

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	TITLE/ORG	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Billett, Michele	CCP Training Coordinator		X	
Burns, Scott	CCP Engineering		X	
Cannon, Val	CCP QA Manager		X	X
Fisher, A.J.	CCP Training	X	X	X
Golden, Jerry	CCP Engineering		X	
Gomez, CM	CCP QA Engineer	X	X	
Kirkes, Creta	CCP WCO/WCA		X	
Lee, Ronnie	SCCP QS PM/WCO	X		
Martin, Ryan	CCP Training Specialist		X	
Pearcy, Sheila	CCP Records Mgr	X	X	X
Plotz, D.K.	CCP MGR		X	X
Punchios, Sheri	CCP Records Clerk		X	
Ramirez, Mike	CCP WCO		X	
Stone, Keith			X	X
Turner, Charles	CCP GGT/HSG		X	

SUMMARY TABLE OF AUDIT RESULTS

Evaluated Areas	Classification of Concern(s) by Concern Number				Program Status		
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Audited Activity							
CCP Transportation					A	S	E
Packaging, Certification, Shipping					A	S	E
Procedures, Document Control, Records					A	S	E
Personnel Qualification and Training					A	S	E
Nonconformances, Corrective Actions, Corrective Action Management					A	S	E
Surveillances and Assessments, Quality Oversight, Lessons Learned, Conduct of Ops, Data Analysis and Trending					A	S	E
Inspection Control, M&TE	1			1	A	S	E
Procurement					A	S	E
Leak Testing, Flammable Gas, Gas Generation					A	S	E
WDS/WWIS					A	S	E
TOTALS	1	0	0	1	A	S	E

LISTING OF AUDITED CCP PROCEDURES

	Document No.	Document Title
1.	CCP-PO-002, Rev. 24	CCP Transuranic Waste Certification Plan
2.	CCP-PO-003, Rev. 11	CCP Contact-Handled Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)
3.	CCP-PO-005, Rev. 21	CCP Conduct of Operations
4.	CCP-PO-050, Rev. 0	CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)
5.	CCP-PO-505, Rev. 0	CCP Remote-Handled Transuranic Authorized Methods for Payload Control (CCP RH-TRAMPAC)
6.	CCP-QP-002, Rev. 29	CCP Training and Qualification Plan
7.	CCP-QP-004, Rev. 9	CCP Corrective Action Management
8.	CCP-QP-005, Rev. 18	CCP TRU Nonconforming Item Reporting and Control
9.	CCP-QP-006, Rev. 9	CCP Corrective Action Reporting and Control
10.	CCP-QP-008, Rev. 16	CCP Records Management
11.	CCP-QP-010, Rev. 20	CCP Document Preparation, Approval, and Control
12.	CCP-QP-014, Rev. 3	CCP Data Analysis and Trending
13.	CCP-QP-015, Rev. 10	CCP Procurement
14.	CCP-QP-016, Rev. 15	CCP Control of Measuring, Testing, and Data Collection Equipment
15.	CCP-QP-018, Rev. 8	CCP Management Assessment
16.	CCP-QP-021, Rev. 7	CCP Surveillance Program
17.	CCP-QP-026, Rev. 10	CCP Inspection Control
18.	CCP-QP-028, Rev. 11	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
19.	CCP-QP-030, Rev. 8	Written Practice for the Qualification of CCP Helium Leak Detection Personnel
20.	CCP-TP-030, Rev. 28	CCP CH TRU Waste Certification and WWIS Data Entry
21.	CCP-TP-033, Rev. 17	CCP Shipping of CH TRU Waste
22.	CCP-TP-055, Rev. 4	CCP Varian Porta-Test Leak Detector Operations
23.	CCP-TP-083, Rev. 7	CCP Gas Generation Testing
24.	CCP-TP-086, Rev. 14	CCP CH Packaging Payload Assembly
25.	CCP-TP-138, Rev. 1	Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure
26.	CCP-TP-507, Rev. 6	CCP Shipping RH TRU Waste
27.	CCP-TP-530, Rev. 9	CCP RH TRU Waste Certification and WWIS Data Entry