



**Department of Energy**  
 Carlsbad Field Office  
 P. O. Box 3090  
 Carlsbad, New Mexico 88221  
 DEC 16 2010



Mr. Steve Zappe, Project Leader  
 Hazardous Materials Bureau  
 New Mexico Environment Department  
 2905 Rodeo Park Drive East, Building 1  
 Santa Fe, New Mexico 87505-6303

Subject: Transmittal of Responses, Revised Final Audit Report, and Revised B6 Checklist  
 Addressing NMED Comments Associated with CBFO Audit A-10-16, INL/CCP

Dear Mr. Zappe:

Enclosed are the responses, revised final audit report, and revised B6 checklist addressing New Mexico Environment Department (NMED) comments associated with Carlsbad Field Office (CBFO) Audit A-10-16 of the Idaho National Laboratory Central Characterization Project (INL/CCP). The comments were transmitted to CBFO by the letter dated October 20, 2010.

Should you have any questions, please contact Dennis S. Miehl, Acting Director of Quality Assurance, at (575) 234-7491.

Sincerely,

Edward Ziemianski  
 Acting Manager

Enclosures

- cc: w/o enclosures
- G. Basabilvazo, CBFO \*ED
- D. Miehl, CBFO ED
- D. Gadbury, CBFO ED
- J. R. Stroble, CBFO ED
- M. Navarrete, CBFO ED
- N. Castaneda, CBFO ED
- S. McCauslin, CBFO ED
- J. Bearzi, NMED ED
- S. Holmes, NMED ED
- J. Kieling, NMED ED
- WWIS Database Administrators ED
- K. Martin, CTAC ED
- T. Bowden, CTAC ED

\*ED denotes electronic distribution

- cc: w/enclosures
- WIPP Operating Record, MS: 452-09
- CBFO QA File
- CBFO M&RC



**RESPONSES TO NMED COMMENTS ON THE  
IDAHO NATIONAL LABORATORY/CENTRAL CHARACTERIZATION PROJECT  
(INL/CCP) FINAL AUDIT REPORT A-10-16**

NMED's review indicated that the body of the Audit Report and the B6 checklists generally appear to address the applicable elements. NMED provides the following comments for the Permittees consideration.

1. In question 313 of the B6 Checklist, CCP-TP-006 is cited as an implementing procedure, but there is no basis in Revision 14 of CCP-TP-006 for the following statement in the Comments column: "Liquids are separated at time packaging at ARP." CBFO must direct CCP to revise CCP-TP-006 to address the requirement in the Permit.

*Response: The comment "Liquids are separated at time packaging at ARP" has been removed.*

2. In question 314a of the B6 Checklist, CCP-QP-006 is cited. NMED believes this should be CCP-TP-006.

*Response: The reference of CCP-QP-006 has been changed to CCP-TP-006 in question 314a of B6-6.*

3. As written, CDA #1 is nonsensical and appears to have been inappropriately filled out by the audit team members. Section 5.0, Description of Condition Adverse to Quality, is not unrelated to Section 7.0, Actions Taken By Auditee, both appear to have been pasted verbatim into the body of the audit report on page 15. The first paragraph of Section 7.0 appears to be the description of a second condition adverse to quality, not an action taken to address the paragraph in Section 5.0. Furthermore, the statement, "These discrepancies were resolved and verified during the audit" does not provide useful information. On the other hand, the Discrepancy Resolution documents attached to the CDA form include sections labeled, "Nature of Discrepancy" and "Resolution," which could be distilled down to provide meaningful information in Sections 5.0 and 7.0 of the CDA form. Section 5.0 must contain the description of both conditions adverse to quality (i.e., the 1- vs. 2-gallon inner container discrepancy and the discrepancy over assigning F007 and F009), and Section 7 must specify address what actions the auditee took to resolve discrepancies. CBFO must submit a revised CDA form.

*Response: CDA #1 has been rewritten to address only one issue corrected during the audit. A CDA #2 has been developed to address the remainder of the issue as originally stated in CDA #1. The Audit Report has been revised to reflect two CDAs.*

U.S. DEPARTMENT OF ENERGY  
CARLSBAD FIELD OFFICE

FINAL AUDIT REPORT

OF THE

IDAHO NATIONAL LABORATORY  
CENTRAL CHARACTERIZATION PROJECT (INL/CCP)

IDAHO FALLS, IDAHO

AUDIT NUMBER A-10-16

June 8 – 10, 2010

REVISED  
FINAL AUDIT REPORT OF WASTE CHARACTERIZATION ACTIVITIES  
RECERTIFICATION AUDIT IN ACCORDANCE WITH THE HAZARDOUS WASTE  
FACILITY PERMIT



Prepared by: *Tamara D. Bowden*  
Tamara D. Bowden, CTAC  
Audit Team Leader

Date: 12/14/10

Approved by: *Martin Nunniffe for*  
Ava L. Holland Dennis S. Miehl, CBFO  
Acting, Quality Assurance Director

Date: 12-15-10

## 1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-10-16 was conducted to evaluate the continued adequacy, implementation, and effectiveness of Idaho National Laboratory (INL) transuranic (TRU) waste characterization activities performed for the INL by the Washington TRU Solutions Central Characterization Project (WTS/CCP). Activities were evaluated relative to the requirements of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the *CBFO Quality Assurance Program Document (QAPD)*, and the *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*.

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 INL/CCP facility near Idaho Falls, ID, and the WTS/CCP facilities in Carlsbad, NM, June 8 through 10, 2010. The audit team concluded that the overall adequacy of the INL/CCP technical and QA programs, as applicable to audited activities, was satisfactory in meeting requirements. The audit team verified that the INL/CCP program for characterization and certification activities related to CH SCGs S3000 homogeneous solids, S4000 soils/gravel, S5000 debris wastes, and RH SCGs S3000 homogeneous solids and S5000 debris wastes continue to be adequate, satisfactorily implemented, and effective.

The audit team also concluded that overall, the defined QA and technical programs for these activities were being satisfactorily implemented in accordance with the CCP *Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)* and its implementing procedures, and that the processes were effective.

The audit team identified one condition adverse to quality resulting in the issuance of one corrective action report (CAR). The CAR was identified during the evaluation of reportable nonconformances and is described in section 6.1.

~~One deficiency~~ Two deficiencies, isolated in nature and requiring only remedial corrective action, ~~was~~ were identified and corrected during the audit (CDA). No Observations were identified during the audit, and one Recommendation is being offered for management consideration. The CDAs and Recommendation are described in sections 6.2 and 7.2.

## 2.0 SCOPE AND PURPOSE

### 2.1 Scope

The audit team evaluated the continued adequacy, implementation, and effectiveness of the INL/CCP TRU waste characterization and certification activities for CH SCGs S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris wastes, and RH SCG S3000 homogeneous solids and S5000 debris wastes.

#### General

- Results of previous audits
- Changes in programs or operations
- New programs or activities being implemented
- Changes in key personnel

The following QA-related activities were evaluated in accordance with the B6-1 checklist:

- Personnel Qualification and Training
- Records
- Control of Nonconforming Items

The following characterization technical elements were evaluated in accordance with the WAC and WAP.

#### WTS/CCP (Carlsbad)

- Acceptable Knowledge (AK)
- Waste Certification (e.g., Waste Stream Profile Forms [WSPFs])
- WIPP Waste Information System (WWIS)

#### INL/CCP (Idaho Falls)

- Project-level data verification and validation (V&V)
- Project-level data validation for headspace gas (HSG) analytical data and solids sampling analytical data generated by the INL laboratories
- Real-time radiography (RTR)
- Visual examination (VE)
- HSG sampling
- Solids waste sampling
- Sample control

Evaluation of the INL/CCP TRU Waste Characterization Program was based on current revisions of the following documents:

NM4890139088-TSDF, Waste Isolation Pilot Plant Hazardous Waste Facility Permit (HWFP), the New Mexico Environment Department

DOE/CBFO-94-1012, *Quality Assurance Program Document (QAPD)*

DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*

DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*

CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)*

CCP-PO-002, *CCP Transuranic Waste Certification Plan*

CCP-PO-024, *CCP/INL Interface Document*

CCP-PO-501, *CCP/INL RH TRU Waste Interface Document*

Related INL/CCP technical and quality assurance implementing procedures

## 2.2 Purpose

Audit A-10-16 was conducted to assess the level of compliance of waste characterization and certification activities for CH SCGs S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris wastes, and RH SCG S3000 homogeneous solids and S5000 debris wastes.

## 3.0 AUDIT TEAM AND OBSERVERS

### AUDITORS/TECHNICAL SPECIALISTS

Tamara Bowden	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Dennis Miehl	Management Representative, CBFO
Pete Rodriguez	Auditor, CTAC
Greg Knox	Auditor, CTAC
James Schuetz	Auditor, CTAC
Rick Castillo	Auditor, CTAC
Norm Frank	Auditor, CTAC
Cindi Castillo	Auditor, CTAC
Porf Martinez	Auditor/Technical Specialist, CTAC
Tommy Putnam	Auditor/Technical Specialist, CTAC
Paul Gomez	Technical Specialist, CTAC
Jim Oliver	Technical Specialist, CTAC
Dick Blauvelt	Technical Specialist, CTAC

Rhett Bradford	Technical Specialist, CTAC
B.J. Verret	Technical Specialist, CTAC
Robbie Morrison	Technical Specialist, WTS

### **OBSERVERS**

Norma Castaneda	CBFO
Kathy Leonard	CTAC
Connie Walker	New Mexico Environment Department (NMED)
Tim Hall	NMED
Ricardo Maestas	NMED

## **4.0 AUDIT PARTICIPANTS**

INL/CCP individuals involved in the audit process are identified in Attachment 1. A pre-audit meeting was held at INL/CCP Building WMF-637 near Idaho Falls, ID, and the Skeen-Whitlock Building, in Carlsbad, NM, June 8, 2010. Daily briefings were held with INL/CCP management and staff to discuss issues and potential deficiencies. The audit was concluded with a post-audit meeting held at the INL/CCP WMF-637 building near Idaho Falls, ID, and in the Skeen-Whitlock Building, in Carlsbad, NM, on June 10, 2010.

## **5.0 SUMMARY OF AUDIT RESULTS**

### **5.1 Program Adequacy and Implementation**

This audit was performed to assess the ability of INL/CCP to characterize RH and CH waste from SCG S3000 homogeneous solids, SCG S5000 debris waste, and S4000 CH soils waste to the requirements specified in the WIPP WAP, WAC, and QAPD. The characterization methods assessed were AK, HSG Sampling, VE, and RTR. Other processes evaluated were data review and validation, data quality objective (DQO) reconciliation, the preparation of WSPFs, and WWIS data entry.

The audit team concluded that the applicable INL/CCP TRU waste characterization activities, as described in the associated INL/CCP implementing procedures, are satisfactory in meeting the requirements of the HWFP. The audit team identified one condition adverse to quality resulting in the issuance of CBFO CAR 10-036. ~~One~~ ~~Two~~ ~~deficiency~~ deficiencies requiring remedial corrective action ~~was~~ were corrected during the audit (CDA) and one Recommendation was presented for management consideration. The CAR, CDAs, and Recommendation are described in sections 6 and 7. The supporting documentation for the closure of the CAR and CDAs is contained in Attachment 2. Audit activities, including specific objective evidence reviewed, are described below and in the attached B6 checklist. The B6 checklist identifies the INL/CCP program documents and procedures where the WAP requirements are met. Attachment 3 contains the objective evidence, and attachment 4 contains a listing of INL/CCP implementing procedures. Attachment 5 identifies the processes and equipment audited for certification. Attachment 6 is a procedures revision matrix showing the revisions since the last recertification audit, A-09-14.

## **5.2 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 HWFP is cited briefly (and in detail on the checklist), and the result of the assessment is provided.

### **5.2.1 Results of Previous Audits**

The results of CBFO certification Audits A-09-14 (Annual Recertification) and A-10-03 (RH VE) of INL/CCP were examined and the audit team determined that the concerns identified in the audits have been addressed.

### **5.2.2 Changes in Programs or Operations**

There have been no significant changes in programs or operations since the performance of Audits A-09-14 and A-10-03.

### **5.2.3 New Programs or Activities Being Implemented**

No new programs or activities have been implemented since the performance of the referenced audits. For this audit, CBFO combined the scope of the two previous audits, thus enabling CBFO to perform an annual certification audit assessing all the characterization and certification activities performed at INL/CCP.

### **5.2.4 Changes in Key Personnel**

The previous site project manager (Mr. Michael Valentine) was replaced by Mr. Jim Vernon.

### **5.2.5 Table B6-1, WAP Checklist**

This audit was performed to assess the ability of the INL/CCP to manage and perform TRU waste characterization and certification activities for RH and CH waste from SCG S3000 homogeneous solids, S4000 soils, and SCG S5000 debris waste. The B6-1 WAP checklist addresses general program requirements from an overall management perspective. The general requirements checklist addresses both technical requirements and QA programmatic requirements that, when collectively implemented, ensure effective overall management of TRU waste characterization and certification activities. Requirements are integrated into controlled documents that will ensure the waste characterization strategy, as defined in the WAP, is accomplished and documented in accordance with controlled processes and procedures.

The audit team evaluated both the QA program aspects of the B6-1 checklist and the technical activities defined in the remaining B6 checklists.



The CBFO audit team evaluated the INL/CCP QA program activities that demonstrate compliance with the Table B6-1 checklist QA-related questions. The following B6-1 checklist items related to the implementation of the QA program were evaluated by the team.

- **Personnel Qualification and Training** – The audit team conducted interviews with responsible personnel and reviewed implementing procedures relative to the training and qualification of personnel to determine the degree to which the procedures adequately address upper-tier HWFP and QAPD requirements. Personnel training records covering both CH and RH activities associated with AK, VE, RTR, HSG, transportation personnel, and site project managers (SPMs) were examined to verify implementation of associated requirements and to verify that personnel performing characterization activities are appropriately qualified. The team reviewed the CCP List of Qualified Individuals (LOQI) and personnel qualification cards. The procedures reviewed and objective evidence assembled and evaluated during the audit indicated that the applicable requirements for personnel qualification and training were adequately established for compliance with upper-tier requirements and were effectively implemented. No WAP-related concerns were identified.
- **QA Records** – The audit team reviewed implementing procedures relative to the control and administration of QA records to determine the degree to which the procedures adequately address upper-tier HWFP and QAPD requirements. The team reviewed Procedures CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*; CCP-PO-002, *CCP Transuranic Waste Certification Plan*; CCP-QP-008, *CCP Records Management*, and CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*. The audit team viewed the CCP Records storage areas in the Skeen-Whitlock Building. Facilities and records storage cabinets were locked, with access lists provided and keys stored in locked key boxes. Evidence of the control of QA records was verified through the review of the INL/CCP CH waste Records Inventory and Disposition Schedule (RIDS) dated 6/7/2010, the RH waste RIDS dated 6/7/2010, and associated waste characterization process batch data reports (BDRs). The procedures reviewed and objective evidence assembled and evaluated during the audit indicated that the applicable requirements for quality assurance records were adequately established for compliance with upper-tier requirements and were effectively implemented. No WAP-related concerns were identified.
- **Control of Nonconforming Items and Corrective Action** – The audit team conducted interviews with responsible personnel and reviewed implementing procedures relative to the control of nonconformances to determine the degree to which procedures adequately address upper-tier HWFP and QAPD requirements. The team reviewed Procedures CCP-QP-004, *CCP Corrective Action Management*, CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*, and CCP-QP-006, *CCP Corrective Action Reporting and Control*. Evidence of the control of nonconformance was verified through the review of nonconformance report (NCR)

logs and NCRs, both reportable and non-reportable. The following NCRs were reviewed.

**CH NCRs**

NCR-INL-0028-09  
 NCR-INL-0516-09  
 NCR-INL-0521-09  
 NCR-INL-0529-09  
 NCR-INL-0009-10  
 NCR-INL-0503-10  
 NCR-INL-0504-10  
 NCR-INL-0513-10  
 NCR-INL-0520-10

**RH NCRs**

NCR-RHINL-0509-09  
 NCR-RHINL-0502-10  
 NCR-RHINL-0506-10  
 NCR-RHINL-0511-10  
 NCR-RHINL-0512-09

CCP CAR-INL-0006-09 was issued to address administrative concerns associated with NCR-INL-0521-09, which had been evaluated as "Significant." The procedures reviewed and objective evidence assembled and evaluated during the audit indicated that the applicable requirements for control of nonconformances were adequately established for compliance with upper-tier requirements, and were effectively implemented. One WAP-related concern was identified, resulting in issuance of CAR 10-036, to document one case where notification of CBFO had not occurred within the required five-day period (see section 6.1).

- **WWIS** – The audit team conducted interviews with responsible personnel and reviewed implementing procedures relative to the use of the WWIS/Waste Data System (WDS) to determine the degree to which procedures adequately address upper-tier requirements. The procedures reviewed included CCP-TP-030, *CCP CH TRU Waste Certification and WWIS/WDS Data Entry*, and CCP-TP-530, *CCP RH TRU Waste Certification and WWIS/WDS Data Entry*. Proper use of the WWIS system was verified through review of CH WWIS Data Shipping Package for Waste Container Numbers ARP19822 and ARP19218, and RH WWIS Data Shipping Package for Canister ID0211 containing Waste Container Numbers IDAWANL820038B, IDAWANL830020A, and IDAWANL830020B. The audit team witnessed CH WWIS/WDS Data Shipping Package data entry into the system. No concerns were identified.

The procedures reviewed, objective evidence assembled, and WWIS/WDS data entry witnessed during the audit indicated that the applicable requirements for use of the WWIS/WDS system were adequately established for compliance with upper-tier requirements and were effectively implemented.

Overall, WIPP Waste Information System activities were determined to be adequate, satisfactorily implemented, and effective. No WAP-related concerns were identified.

- Transportation – The audit team conducted interviews with responsible personnel and reviewed implementing procedures relative to transportation activities to determine the degree to which procedures adequately address upper-tier requirements. The team reviewed Procedures CCP-TP-033, *CCP Shipping of CH TRU Waste*, and CCP-TP-507, *CCP Shipping of Remote-Handled Transuranic Waste*. The audit team reviewed the Uniform Hazardous Waste Manifest for CH Shipment Numbers IN100247 and IN100255, and RH Shipment Number INR10011. The procedures reviewed and objective evidence assembled indicated that the applicable requirements for transportation-related documentation are adequately established for compliance with upper-tier requirements and are effectively implemented. No WAP-related concerns were identified.

WSPFs and related characterization information summary (CIS) forms were reviewed to establish the objective evidence for reporting waste characterization information to the WIPP. The forms were completed using information from current characterization processes.

Technical activities that were evaluated, including both characterization and certification activities, included: data-generation and project-level V&V, AK, HSG sampling, RTR, VE, and preparation of WSPFs for CH SCG S3000 homogeneous solids, S4000 soils/gravel and S5000 debris wastes, and RH SCG S3000 homogeneous solids and S5000 debris waste. Objective evidence to evaluate the implementation of the associated characterization activities was selected and reviewed. BDRs, sampling records, and training documentation for personnel were included in the evaluation. The audit included direct observation of actual waste characterization activities (such as VE and WWIS data entry). Each characterization process involves:

- Collecting raw data
- Collecting quality assurance/quality control (QA/QC) samples or information
- Reducing the data to a useable format, including a standard report
- Review of the report by the data generation facility and the site project office
- Comparing the data against program DQOs
- Reporting the final waste characterization information to the WIPP

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. Specific procedures audited and objective evidence reviewed are described in the following sections.

During the audit, INL/CCP demonstrated compliance with the characterization requirements of the HWFP through documentation and performance of characterization activities.

Objective evidence, primarily BDRs, was compiled and examined to ensure that project-level activities were being adequately performed to support waste characterization activities. The audit team reviewed BDRs for both CH and RH waste for RTR, VE, HSG sampling and analysis, and solids sampling and analysis for SCGs S3000, S4000, and

S5000 waste streams. In addition, the random container selection process and respective memos for both HSG sampling and solids sampling were examined. The most recent quarterly repeat data generation-level reviews were also evaluated, as applicable.

Solids sampling (coring) is performed by the Advanced Mixed Waste Treatment Project (AMWTP) and analyzed at the INL laboratories. Solids and soils/gravel sampling (grid method), and HSG Summa<sup>®</sup> sampling are performed by INL/CCP and analyzed at the INL laboratories. BDRs from these analyses are validated at the project level by INL/CCP.

The project-level data V&V process was evaluated by reviewing the following BDRs. Copies of the BDRs are included in Attachment 3.

#### Real-Time Radiography

INLRHRTR10004

INLRHRTR10006

INRTR5090056

INRTR5090060

INRTR5090061

#### Visual Examination

RHINLVE090003

RHINLVE100001

IN-ARP-VE-001958

IN-ARP-VE-001982

IN-ARP-VE-002001

#### Headspace Gas Sampling and Analysis

INHSGS090013

INHSGS090012

INHSGS090014

ECL09030G

ECL09030M

ECL09028G

ECL09028M

ECL09031G

ECL09031M

#### Solids Sampling and Analysis

IDRH0902

IDRH0904

ALD09007V

ALD09007S

ALD09007N

ALD09007M

S3900-LOT-04-04

ALD10009V  
ALD10009S  
ALD10009N  
ALD10009M

AK documentation and the auditable AK record were reviewed in detail for the debris, solids, and soils/gravel SCGs. The AK record was reviewed to demonstrate that the required information was present and correctly interpreted. BDRs for ten containers used for traceability also were used to demonstrate augmentation of AK, reconciliation of DQOs, and preparation of WSPFs.

WSPFs and the related summarized characterization information were reviewed to establish the objective evidence for reporting waste characterization information to WIPP. The forms were completed using information from current characterization processes.

This audit verified that INL/CCP is satisfactorily implementing the program requirements from an overall management perspective, including the project-level V&V process, to characterize and certify waste for disposal in accordance with HWFP requirements.

#### **5.2.6 Table B6-2, Solids and Soil/Gravel Sampling Checklist**

The audit team reviewed solids sampling activities performed by INL/CCP at the Accelerated Retrieval Project (ARP) and Idaho Nuclear Technology and Engineering Center (INTEC) facilities. Sampling is performed by INL/CCP using CCP-TP-008, *CCP Solids Sampling Procedure*, and CCP-TP-512, *CCP Remote-Handled Waste Sampling*. No sampling activities were being performed during the audit.

The audit team reviewed CH BDRs S3900-LOT-04-04 and S3900-LOT-04-03, and RH BDR IDRH0904, as well as the CCP Sampling Analysis Plan and CBFO Approval for CCP-AK-INL-525. The spare sampling tools and sample bottles (sampling kits) were provided to the audit team. They were packaged in sealed plastic bags and were traceable to the applicable cleaning lot documentation. Training for solids sampling personnel was reviewed.

The audit team concluded the Solids Sampling and Analysis Program at INL/CCP was adequate, satisfactorily implemented, and effective.

#### **5.2.7 Table B6-3, Acceptable Knowledge Checklist**

The audit team reviewed AK documentation for CH TRU waste SCGs S3000, S4000, and S5000, and RH TRU waste SCG S5000. In addition, the team examined the AK record of certification activities for an RH SCG S3000 solids waste stream.

Appropriate documents that supported compliance were reviewed and compiled as objective evidence including AK Summary Reports, WSPFs and attachments, numerous AK Source Document Summaries, random container selection reports for

HSG sampling and analysis and solids sampling and analysis, BDRs from all certified characterization testing, data reconciliation packages, AK discrepancy resolution documentation, and NCRs dealing with the identification and treatment of prohibited items.

Ten drums, two from each of the five waste streams reviewed, were tracked during the WAP-required traceability exercise. The drums selected provided BDRs for RTR, VE, HSG sampling and analysis, and solids sampling and analysis. In addition to this documentation, waste container input data and/or relevant database entries were compiled as part of the traceability effort. Furthermore, the audit team examined requisite WAP AK Accuracy Reports, AK Expert (AKE) and SPM training records and the most recent AK program internal surveillance.

The review ~~resulted in two~~ identified three concerns. The first concern resulted in a Recommendation and included several changes for clarification to the AK Summary Reports for the CH waste streams reviewed. These recommended changes were added to freeze files already in place for the current draft of those reports. The second concern addressed ~~discrepancies~~ a discrepancy identified in the AK record regarding ~~the assignment of specific F codes to the LLNL S3900 waste stream and~~ the size of the inner containers of the ID-MFC-S5400-RH waste stream. The third concern dealt with discrepancies in the AK record related to the assignment of specific F hazardous waste numbers to the LLNL S3900 waste stream examined during the audit. ~~The~~ These two discrepancies were resolved and properly documented during the audit (see CDA 1 and CDA 2 in section 6.2 and Recommendation 1 in section 6.4).

Overall, the Acceptable Knowledge Program was judged to be adequate, satisfactorily implemented, and effective in meeting WAP waste certification requirements.

#### **5.2.8 Table B6-4, Headspace Gas Checklist**

HSG sampling activities performed by the INL/CCP were evaluated during the audit. The evaluation included examination of sampling BDRs for both CH and RH waste. Review by an Independent Technical Reviewer (ITR) was verified for all BDRs. The BDRs were examined for completeness and correctness and found to be satisfactory. Personnel were interviewed, sampling areas were examined, and sampling equipment and standards were verified to be compliant. Collection of field reference standards (FRS) has been discontinued, as allowed under the Permit, and the letter authorizing this discontinuation was verified. The sample chain-of-custody (COC) procedure was found to be acceptable. Training for HSG sampling personnel was verified to be current and acceptable.

The audit team concluded that the Headspace Gas Sampling process at INL/CCP for both CH and RH gas sampling was adequate, satisfactorily implemented, and effective.

### 5.2.9 Table B6-5, Radiography Checklist

The audit team evaluated the adequacy, implementation, and effectiveness of INL/CCP activities to characterize and certify CH SCG S3000 solids waste and S5000 debris waste, and RH SCG S5000 waste using RTR.

The audit team evaluated the following RTR-related procedures: CCP-TP-053, Rev. 7, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*; CCP-TP-508, Rev. 3, *CCP RH Standard Real-Time Radiography Inspection Procedure*; CCP-TP-119, Rev. 3, *CCP Operating the Real-Time Radiography (RTR) System #5*; CCP-TP-080, Rev. 1, *CCP Operating the WMF 610 Real-Time Radiography (RTR) System*; CCP-TP-028, Rev. 3, *CCP Radiographic Test and Training Drum Requirements*; and CCP-QP-002, Rev. 27, *CCP Training and Qualification Plan*. The team determined that the procedures adequately address requirements from upper-tier documents.

The audit team evaluated eight CH RTR BDRs, three RH RTR BDRs, and the following associated video recordings:

INRTR5090049	INRTR5090060	INRTR5090056	INRTR5090074
INRTR5090062	INRTR5090061	INRTR5100010	INRTR5100015
INLRHRTR10001	INLRHRTR10006	INLRHRTR09007	

The audit team evaluated evidence of RTR operator-required capability demonstration records and viewed capability demonstration audio/video recordings for two CH RTR operators and two RH RTR operators. The audit team also evaluated qualification cards and records for three CH RTR operators, three RH RTR operators, and three SPMs.

INL/CCP was not characterizing CH SCG S3000 solids waste or SCG S5000 debris waste at the time of the audit. Due to maintenance activities, INL/CCP was not characterizing RH SCG S5000 at the time of the audit. The audit team performed a walk-through of CH RTR Unit #5 in Building WMF 610 and the RH RTR unit in INTEC Building 659. During the walk-throughs, the audit team verified the acceptability of equipment. The audit team interviewed CH and RH RTR personnel and reviewed operational logbooks, standing work orders, CCP procedures, and AK Summaries. No concerns were identified.

Overall, the audit team determined that INL/CCP Real-time Radiography activities were adequate, satisfactorily implemented, and effective.

### 5.2.10 Table B6-6, VE Checklist

The audit team reviewed VE activities performed by INL-CCP at ARP for CH waste and at INTEC for RH waste. For CH waste, VE is performed in accordance with

CCP-TP-006, *CCP Visual Examination Technique for Idaho National Laboratory (INL) Newly Generated TRU Waste Retrieved From Pits*. For RH waste, VE is performed in accordance with CCP-TP-500, *CCP Remote-Handled Waste Visual Examination*. The audit team reviewed BDRs and training records for VE operators and VE Experts (VEEs). The audit team observed VE operations in Building 1612 airlock 3 at the ARP facility. No RH VE operations were being conducted at the time of the audit. RH VE operations were observed during Surveillance S-10-22 on March 3, 2010. No concerns were identified.

The audit team determined that INL/CCP Visual Examination operations were adequate, satisfactorily implemented and effective.

## **6.0 SUMMARY OF DEFICIENCIES**

### **6.1 Corrective Action Reports**

During the audit, the audit team may identify CAQs and document them on CARs.

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

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

One HWFP-related CAR, described below, was initiated as a result of Audit A-10-16.

#### **CBFO CAR 10-036**

Nonconformance report NCR-INL-0028-09 was identified at the SPM-level review and initiated on 8/20/09. No objective evidence was provided indicating that CBFO was notified of the NCR within five calendar days as required.

### **6.2 Deficiencies Corrected During the Audit**

During the audit, the audit team may identify conditions adverse to quality (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 (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.

One deficiency, requiring remedial action only, was identified during the audit.

#### **CDA 1**

The audit noted a discrepancy in the AK Record with regard to the size of the inner containers for waste stream ID-MFC-S5400-RH. AK Summary Report CCP-AK-INL-540 noted that they were two-gallon containers, while the Radiological Characterization Technical Report for this waste stream identified the containers as one gallon in size, based on RTR and VE data.

~~With regard to the inner container size for waste stream ID-MFC-S5400-RH,~~  
The results of VE and RTR provided clear evidence that the inner containers were 1 gallon in size. Therefore a Discrepancy Resolution, DR005, was drafted during the audit to indicate that the correct size is 1 gallon and note that the AK Summary will be revised to reflect this fact. A copy of DR005 is provided with the CDA documentation.

#### **CDA 2**

Discrepancy resolution DR113 identified in AK Summary CCP-AK-INL-009 indicated that waste stream ID-NTLLNL-S3900 should carry both the F007 and F009 hazardous waste numbers. However, these hazardous waste numbers were removed from the stream in revision 6 of the parent AK Summary Report CCP-AK-NTS-001 with justification provided in the text of the AK Summary (AKS). This text was not carried forward into subsequent related AKS documents nor was a DR drafted to document the change. ~~with accompanying DR13.~~

~~Both discrepancies in the AK record for these waste streams required resolution and were addressed during the audit as follows.~~

To address the discrepancy in the AK record for waste stream ID-NTLLNL-S3900, AK Discrepancy Resolution DR121 was drafted during the audit and added to the AK record. This DR details the justification for the removal of F007 and F009 from the stream as described in the companion AK Summary CCP-AK-NTS-001 and thus reconciled all relevant information in the AK record for this waste stream. No hazardous waste numbers were added to or removed from the waste stream by these actions. A copy of this DR is provided with the CDA documentation.

~~These discrepancies were resolved and verified during the audit.~~

## 7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify potential problems or 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 Observations or Recommendations using the following definitions.

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

*Recommendation* – A suggestion that is 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.

### 7.1 Observations

The audit team identified no Observations as a result of the audit.

### 7.2 Recommendations

The audit team presented one HWFP-related Recommendation to INL/CCP management for consideration during the audit.

#### Recommendation 1

The audit team recommends that for clarification, the following changes be made to the AK Summaries for the three CH waste streams reviewed ~~to date~~ during the audit.

##### CCP-AK-INL-017 R0

1. Clarify designations of PK reference numbers in table 1.
2. Remove F003 designations from table 6, reexamine the superscripts applied for ignitability, corrosivity, and reactivity, and provide relevant information for trade name entries.

##### CCP-AK-INL-009 R1

1. Remove F003 designations from table 8, reexamine the superscripts applied for ignitability, corrosivity, and reactivity, and provide relevant information for trade name entries.
2. Clarify the notation of “non-radioactive pyrophorics” identified as a prohibited item in several sections of the AKS.
3. Clarify the description of the inner containers for waste stream S3900 as noted in sections 2.1, 2.2, and 4.6.1.2.
4. Add the chemical 1,1-Dichloroethylene to Table 8, along with the applicable information for the table fields.

5. Provide information on the fate of nineteen 55-gallon drums shown as projected in S6.2 but listed by container number in AK attachment 8.

CCP-AK-INL-001 R8

1. Add ARP IV description to section 4.2.

**8.0 LIST OF ATTACHMENTS**

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Corrective Action Supporting Documentation
- Attachment 3: Objective Evidence
- Attachment 4: INL/CCP Documents Evaluated
- Attachment 5: Processes and Equipment Evaluated During CBFO Audit A-10-16
- Attachment 6: Procedure Revision Matrix

<b>PERSONNEL CONTACTED DURING AUDIT A-10-16</b>				
<b>NAME</b>	<b>TITLE/ORG</b>	<b>PREAUDIT MEETING</b>	<b>CONTACTED DURING AUDIT</b>	<b>POST AUDIT MEETING</b>
Abbott, Preston	Site Manager/MCS	X	X	
Allen, Bill	QA Project Integration/ WTS	X	X	
Andrews, Sway	RTR/Decon/CCP		X	
Bhatt, Raj	Acting RH TRU STR/ CWI	X		X
Billett, Michele	Training Coordinator/CCP		X	
Boland, Corey	NDA Lead/DTC/CCP/ MCS	X	X	
Bowden, Jerry	RTR Operator/VJ Tech		X	
Boudreau, Shane	NDA Operator/PSC		X	
Brasier, David	NDA/Canberra	X	X	
Broomfield, Barbara	SPM/WTS/WRES	X	X	X
Carlson, Ted	VPM/Container Management/ WTS/CCP	X	X	X
Christensen, Tyson	RTR/VJT	X	X	X
Cummins, Sharon	NDA/SHENC/CCP/MCS		X	
Czyzewski, Robert	QAE/WTS	X		X
Chism, Lea	QA Specialist/CBFO	X		
Davis, Crary	NDA LO/CCP		X	X
Dial, Brent	NDA/SGRS/CCP/MCS		X	
Dover, Dale	GGT Lead/NFT	X	X	X
Devarthonda, Murthy	Observer/WTS	X		
Duffy, Colleen	RTR Operator/CWI		X	
Fisher, A.J.	Senior Technical Advisor/WTS	X	X	X
Frost, Lisa	CWI		X	
Gomez, Chris	CCP QA/WTS	X	X	X
Green, Rick	NDA/MCS	X	X	
Haar, David	CCP/WTS		X	X
Harvill, Joe P.	NDA Tech, Lead/WTS	X	X	
Hensley, Lorraine	WWIS/WDS/WCA/CCP		X	
Hinojos, Felicia	Training Manager/CCP/ Stoller			X

<b>PERSONNEL CONTACTED DURING AUDIT A-10-16</b>				
<b>NAME</b>	<b>TITLE/ORG</b>	<b>PREAUDIT MEETING</b>	<b>CONTACTED DURING AUDIT</b>	<b>POST AUDIT MEETING</b>
Holland, Ava	Director Office of QA/ CBFO	X		
Hudston, Lisa	NDA Support/CCP/WTS			X
Johnsen, Tom	CH STR/CWI	X		X
Jones, Laura R.	QA/WTS	X	X	
Jorgensen, Kendall	Shipping/TCO/AMWTP		X	
Kantrowitz, Richard	SPM/CCP/WTS			X
Keathley, Susan	Records Custodian/CCP		X	
Kimmit, Rod	Engineer/CWI	X		
Kirkes, Creta	Waste Certification/ Shipping/ WCO/CCP		X	
Law, Jenifer	NDA/WAGS/CCP/MCS		X	
Martin, Linda	Records Custodian/CCP		X	
Martin, Ryan	Records Custodian/CCP		X	
McElharry, Stephanie	PSC NDA EA/CCP	X	X	
Medina, Vincent	SPM/WCO/WTS	X		X
Montoya, Jason	AKE/CCP/LANL		X	X
Morales, Bart	NDA/MCS/Canberra	X	X	
Navarrete, Martin	QA Specialist/CBFO	X		
Neeley, Hillari J.	SPM/CCP/WTS			X
Nelson, Laura	SPM/CCP/WTS			X
Oney, Fred	RTR/VJT	X	X	X
Ott, Derek	Observer/WTS	X	X	
Parker, Tami	Records Custodian/CCP		X	
Pearcy, Mark	Certification Manager/ CCP/WTS		X	X
Pearcy, Sheila	CCP Records Manager/Stoller	X	X	
Peterson, Gary	MLV/Transportation/CCP		X	X
Pimentel, Trisha	Records Clerk/Stoller	X		
Ploetz, D. K.	Manager/CCP		X	X
Poirier, Joe	FGA Lead/NFT	X	X	X
Poole, Jeff	VEE/WTS	X	X	X
Quintana, Irene	SPM/WTS	X	X	
Raman, Swami	VE/ITR/CWI		X	

<b>PERSONNEL CONTACTED DURING AUDIT A-10-16</b>				
<b>NAME</b>	<b>TITLE/ORG</b>	<b>PREAUDIT MEETING</b>	<b>CONTACTED DURING AUDIT</b>	<b>POST AUDIT MEETING</b>
Ramirez, Mike	Waste Certification/ Shipping/ WCO/CCP		X	
Rowsell, James	NDA Lead Operator/ MCS	X		X
Sensibaugh, Michael	CCP Project Manager/ WTS	X	X	X
Smith, Greg	RH VPM/WTS	X	X	X
Smith, Scott	AKE/CCP	X	X	X
Stoner, Norm	NDA EA/MCS	X	X	
Verlanic, Bill	INL P.M./WTS	X	X	X
Vernon, Jim	SPM/WTS	X	X	X
Wachter, Joseph	Technical Manager/MCS/ Canberra	X	X	
Walentine, Michael	SPM/WTS	X	X	
Walters, Eddy R.	FGA/HSGS Lead Operator/NFT	X	X	
West, John	NDA/EA/PSC/MCS		X	
Weyerman, C. Wade	TCO-MLV/LANL	X	X	X
Woodbury, Bryce	NDA/MCS/Canberra	X	X	X
Yost, David	SPM/WCO/WTS	X	X	X
Young, Rachel	QAE/WTS	X		X

<b>Personnel Contacted During The Audit (by Area of Expertise)</b>	
QA General	Jim Vernon Bill Verlanic Barbara Broomfield Michael Sensibaugh
Personnel Qualification and Training	Michele Billett Felicia Hinojos
Documents and Records	Sheila Pearcy Susan Keathley Linda Martin Tami Parker Ryan Martin
Nonconformance/Corrective Action	Chris Gomez Laura Jones
Transportation (B6 questions)	Creta Kirkes Mike Ramirez
Performance Demonstration Program	Joe Harvill Lisa Hudston
Acceptable Knowledge	Scott Smith Irene Quintana Michael Valentine Jason Montoya Mark Percy
Headspace Gas Sampling and Analysis	Eddy R. Walters
Real-Time Radiography	Jerry Bowden Fred Oney Tyson Christensen Colleen Duffy
Visual Examination	Jeffrey Poole Barbara Broomfield Swami Raman
Solids Sampling	Jeffrey Poole Barbara Broomfield
Project Level Verification and Validation	Irene Quintana Barbara Broomfield Jim Vernon
Waste Stream Profile Forms	Scott Smith Jason Montoya
WWIS	Creta Kirkes Lorraine Hensley

**CBFO CAR 10-036  
CLOSURE PACKAGE  
IS LOCATED IN BOX**



### **Objective Evidence**

The objective evidence supporting Audit A-10-16 is included in the box(es) submitted with this report. Included in the box(es) is a "Content Map" describing the location (using color coding) and identity of all required objective evidence supporting the performance of the audit.

<b>LISTING OF AUDITED DOCUMENTS</b>			
	<b>Document No.</b>	<b>Rev</b>	<b>Document Title</b>
1.	CCP-PO-001	17	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	23	CCP Transuranic Waste Certification Plan
3.	CCP-PO-024	9	CCP/INL Interface Document
4.	CCP-PO-501	4	CCP/INL RH TRU Waste Interface Document
5.	CCP-QP-002	27	CCP Training and Qualification Plan
6.	CCP-QP-005	18	CCP TRU Nonconforming Item Reporting and Control
7.	CCP-QP-008	15	CCP Records Management
8.	CCP-QP-021	7	CCP Surveillance Program
9.	CCP-QP-028	10	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
10.	CCP-TP-001	17	CCP Project Level Data Validation and Verification
11.	CCP-TP-002	21	CCP Reconciliation of DQOs and Reporting Characterization Data
12.	CCP-TP-003	17	CCP Data Analysis for S3000, S4000, and S5000 Characterization
13.	CCP-TP-005	18	CCP Acceptable Knowledge Documentation
14.	CCP-TP-006	14	CCP Visual Examination Technique for INL Newly Generated TRU Waste Retrieved from Pits
15.	CCP-TP-008	8	CCP Solids Sampling Procedure
16.	CCP-TP-028	3	CCP Radiographic Test and Training Drum Requirements
17.	CCP-TP-030	28	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
18.	CCP-TP-033	16	CCP Shipping of CH TRU Waste
19.	CCP-TP-053	7	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
20.	CCP-TP-068	6	CCP Standardized Container Management
21.	CCP TP-080	1	CCP Operating the WMF-610 Real-Time Radiography (RTR) System
22.	CCP-TP-082	7	CCP Preparing and Handling Waste Drums for Headspace Gas Sampling
23.	CCP-TP-093	13	CCP Sampling of TRU Waste Containers
24.	CCP-TP-106	6	CCP Headspace Gas Sampling Batch Data Report Preparation
25.	CCP-TP-119	3	CCP Operating the Real-Time Radiography (RTR) System #5
26.	CCP-TP-162	0	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
27.	CCP-TP-500	8	CCP Remote-Handled Waste Visual Examination
28.	CCP-TP-506	2	CCP Preparation of the RH TRU Waste AK Characterization Reconciliation Report
29.	CCP-TP-507	6	CCP Shipping of Remote-Handled Transuranic Waste

**LISTING OF AUDITED DOCUMENTS**

	<b>Document No.</b>	<b>Rev</b>	<b>Document Title</b>
30.	CCP-TP-508	3	CCP RH Standard Real-Time Radiography Inspection Procedure
31.	CCP-TP-510	0	CCP Remote-Handled Radiography test and Training Drum Requirements
32.	CCP-TP-512	3	CCP Remote-Handled Waste Sampling
33.	CCP-TP-530	9	CCP RH TRU Waste Certification and WWIS/WDS Data Entry
34.	WP 13-QA.03	17	Quality Assurance Independent Assessment Program

**Processes and Equipment Reviewed During Audit A-10-16 of the INL/CCP**

<b>WIPP #</b>	<b>Process/Equipment Description</b>	<b>Applicable to the Following Waste Streams/Groups of Waste Streams</b>	<b>Currently Approved by NMED</b>	<b>Currently Approved by EPA</b>
<b>NEW PROCESSES OR EQUIPMENT</b>				
N/A	Solids/Soils and Gravel Sampling and Custody for RH	Solids (S3000)	NO	NO
14DTC1	Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH waste stream Procedure CCP-TP-504	Solids (S3000)	N/A	NO
14RHVE1	Visual Examination Procedure – CCP-TP-500	Solids (S3000)	NO	NO
<b>PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT</b>				
The following were evaluated for recertification during CBFO Audit A-10-16				
14VE1	Visual Examination (VE) Procedure – CCP-TP-006 Description – Visual Examination Technique (VET)	Solids (S3000) Soils (S4000) Debris (S5000)	YES	YES
14RHVE1	Visual Examination Procedure – CCP-TP-500 Description - The VE of audio/video media process used for a total of 70 retrievably stored remote-handled (RH) debris waste drums.	RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	YES
14RR2	Nondestructive Examination Procedure – CCP-TP-053 Equipment – MCS RTR-5 Description – MCS Real-time Radiography (RTR) Mobile Characterization (RTR-5) System	Solids (S3000) Debris (S5000)	YES	YES
14RRH1	Nondestructive Examination Procedure – CCP-TP-508 Equipment – RTR-RTR-0659 Description – VJ Technologies, Real-time Radiography Characterization (RTR-RTR-0659) System	RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	YES

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
14GG1	Gas Generation Testing Procedure – CCP-TP-089 Equipment – MGSS Unit/Cart 1 (GC-14B) Description – Gas Generation Testing 55-gallon drums	Waste Type IV	N/A	N/A
14GG2	Gas Generation Testing Procedure – CCP-TP-089 Equipment – MGSS Unit/Cart 2 (GC-17A) Description – Gas Generation Testing 55-gallon drums	Waste Type IV	N/A	N/A
N/A	Acceptable Knowledge	Solids (S3000) Soils/Gravel (S4000) Debris (S5000) RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	YES
N/A	Solids/ Soil and Gravel Sampling and Custody	Solids (S3000) Soils (S4000)	YES	YES
N/A	SUMMA® Headspace Gas (HSG) Sampling and Custody	Debris (S5000) RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	N/A
N/A	Data Verification and Validation	Solids (S3000) Soils (S4000) Debris (S5000) RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	YES

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 (WWIS)	Solids (S3000) Soils (S4000) Debris (S5000) RH Debris (S5000) Waste Stream ID-ANLE-S5000	YES	YES
14SHC1	Nondestructive Assay Procedure – CCP-TP-146 Description – CCP Super High Efficiency Neutron Counter	Solids (S3000) Debris (S5000)	N/A	YES
14HENC1	Nondestructive Assay Procedure – CCP-TP-107 Description – CCP High Efficiency Neutron Counter	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
14SGRS1	Nondestructive Assay Procedure – CCP-TP-115 Description – Stored Waste Examination Pilot Plant (SWEPP) Gamma Ray Spectrometer (SGRS)	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
14WAGS1	Nondestructive Assay Procedure – CCP-TP-019 Description – Waste Assay Gamma Spectrometer	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES
14DTC1	Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH waste stream Procedure CCP-TP-504	Debris (S5000)	N/A	YES
14HG2	Flammable Gas Analysis DOE/WIPP-06-3345	Solids (S3000) Soils (S4000) Debris (S5000) RH Debris (S5000)	N/A	N/A

<b>WIPP #</b>	<b>Process/Equipment Description</b>	<b>Applicable to the Following Waste Streams/Groups of Waste Streams</b>	<b>Currently Approved by NMED</b>	<b>Currently Approved by EPA</b>
14HG5	Flammable Gas Analysis DOE/WIPP-06-3345	Solids (S3000) Soils (S4000) Debris (S5000) RH Debris (S5000)	N/A	N/A
14HG6	Flammable Gas Analysis DOE/WIPP-06-3345	Solids (S3000) Soils (S4000) Debris (S5000) RH Debris (S5000)	N/A	N/A
N/A	Load Management	Solids (S3000) Debris (S5000)	N/A	YES
N/A	QA Program	Solids (S3000) Soils (S4000) Debris (S5000)	N/A	YES

## PROCEDURE REVISION MATRIX

Current INL/CCP Annual Audit A-10-16

Previous INL/CCP Annual Audit A-09-14

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
1	CCP-PO-001	CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)	R16	R17	17 - Updated to agree with the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit Class 1 Modification dated July 2008.
2	CCP-PO-002	CCP Transuranic Waste Certification Plan	R21	R23	22 - Revised to incorporate Revision 6.4 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .  23 - Revised to add Hanford Non-Destructive Assay (NDA) equipment
3	CCP-PO-024	CCP/INL Interface Document	R9	R9	
4	CCP-PO-501	CCP/INL RH TRU Waste Interface Document	R3	R4	4 - Revised to include Flammable Gas Sampling in section 4.7; section 4.18.3 to include all AK reports, CCP-TP-512 and CCP-TP-505; section 4.21 radiochemistry sampling. Added Waste Data System (WDS).
5	CCP-QP-002	CCP Training and Qualification Plan	R27	R27	
6	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control	R17	R18	18 - Revised to incorporate freeze file editorial changes, clarify the ability to delete/remove containers from the Batch Data Report (BDR)/Container ID list when revising a nonconformance report (NCR) per CAR-LANL-0001-09, and incorporate Central Rev. Characterization Project (CCP) Standing Order (SO) CCP-SO-024, 1.
7	CCP-QP-008	CCP Records Management	R14	R15	15 - Revised to make personnel title changes and name changes to organizations. Added section 4.7.1[H] for lost records as well as a section for receipt and handling of Official Use Only (OUO) and Unclassified Controlled Nuclear (UCN) documents.



## PROCEDURE REVISION MATRIX

Current INL/CCP Annual Audit A-10-16

Previous INL/CCP Annual Audit A-09-14

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
8	CCP-QP-021	CCP Surveillance Program	R6	R7	7 - General revision to clarify follow-up to observations and provide clarity of text.
9	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling and Dispositioning	R9	R10	10 - Revised to incorporate changes to Attachment 2, Instructions for Filling Out the Records Inventory and Disposition Schedule
10	CCP-TP-001	CCP Project Level Data Validation and Verification	R17	R17	
11	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data	R20	R21	21 - Revised to answer Waste Isolation Pilot Plant (WIPP) Form 09-050, and add changes to Sections 3 and 4 and make any other editorial changes needed.
12	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization	R16	R17	17 - Revised to delete a reference that is no longer applicable and add the new reference. Also to update attachments and correct editorial errors.
13	CCP-TP-005	CCP Acceptable Knowledge Documentation	R18	R18	
14	CCP-TP-006	CCP Visual Examination Technique for INL Newly Generated TRU Waste Retrieve from Pits	R14	R14	
15	CCP-TP-008	CCP Solids Sampling Procedure	R7	R8	8 - Revised to incorporate cancellation of CCP-TP-161, <i>CCP Random Selection of Containers for Solids Sampling and Analysis</i> and addition of CCP-TP-162, <i>CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis</i> .
16	CCP-TP-028	CCP Radiographic Test and Training Drum Requirements	R3	R3	

## PROCEDURE REVISION MATRIX

Current INL/CCP Annual Audit A-10-16

Previous INL/CCP Annual Audit A-09-14

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
17	CCP-TP-030	CCP CH TRU Waste Certification and WWIS Data Entry	R25	R28	<p>26 - Revised to implement changes made to the <i>Contact-Handled Transuranic Waste Authorized Methods for Payload Control</i> (CH-TRAMPAC).</p> <p>27 - Revised to allow use of the Waste Data System (WDS).</p> <p>28 - Revised to include steps for direct load 100-Gallon drums that require characterization prior to placement in a direct load Standard Waste Box (SWB) and for minor editorial changes.</p>
18	CCP-TP-033	CCP Shipping of CH TRU Waste	R14	R16	<p>15 - Revised based on changes in Revision 3 of the <i>CH-TRAMPAC</i> from the U.S. Nuclear Regulatory Commission (NRC). Editorial changes were also made. Polychlorinated Biphenyls (PCBs) checks added.</p> <p>16 - Revised to incorporate Waste Data System (WDS) operations. Editorial changes were also made.</p>
19	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure	R6	R7	<p>7 - Revised to address the New Mexico Environmental Department's (NMED's) concerns regarding who could perform replicate scans, independent observations, and/or independent technical reviews.</p>
20	CCP-TP-068	CCP Standardized Container Management	R5	R6	<p>6 - Revised to clarify the order of performance for efficiency and to reflect the fact that waste containers will be sampled by SUMMA<sup>®</sup> and Flammable Gas Analysis (FGA) as the Idaho National Laboratory (INL) Laboratory no longer provides hydrogen or methane results for SUMMA<sup>®</sup> samples.</p>

## PROCEDURE REVISION MATRIX

Current INL/CCP Annual Audit A-10-16

Previous INL/CCP Annual Audit A-09-14

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
21	CCP-TP-082	CCP Preparing and Handling Waste Containers for Headspace Gas Sampling	R7	R7	
22	CCP-TP-093	CCP Sampling of TRU Waste Containers	R13	R13	
23	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation	R6	R6	
24	CCP-TP-119	CCP Operating the Real-Time Radiography (RTR) System #5	R3	R3	
25	CCP-TP-500	CCP Remote-Handled Waste Visual Examination	R8	R8	
26	CCP-TP-506	CCP Preparation of the RH Transuranic Waste Acceptable Knowledge Characterization Reconciliation Report	R2	R2	
27	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic	R3	R6	<p>4 - Revised to incorporate corrective actions from Waste Isolation Pilot Plant (WIPP) Form 09-120 (Controlled Shipment Notifications), Corrective Action Report (CAR)-RHLANL-0001-09, Land Disposal Restrictions (LDR) Form code updates, and peer verifications steps.</p> <p>5 - Revised to incorporate Waste Data System (WDS) operations, remove 10-160B steps, and various editorial changes.</p> <p>6 - Alignment of the procedure with modifications made to the Waste</p>
28	CCP-TP-508	CCP RH Standard Real-Time Radiography Inspection Procedure	R2	R3	3 - Revised to address Corrective Action Report (CAR)-RHINL-0001-09.

## PROCEDURE REVISION MATRIX

Current INL/CCP Annual Audit A-10-16

Previous INL/CCP Annual Audit A-09-14

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
29	CCP-TP-510	CCP Remote-Handled Radiography Test and Training Drum Requirements	R0	R0	
30	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry	R7	R9	8 - Revised to remove Section 4.4.24 in response to CAR-RHLANL-0001-09 as well as minor editorial changes.  9 - Revised to allow use of the Waste Data System (WDS) as well as include steps for canisters measuring <200 millirem (mRem) per Central Characterization Project (CCP)-Standing Order (SO)-042.
31	WP 13-QA.03	Quality Assurance Independent Assessment Program	R15	R17	16 – Revised to update document references.  17 – Revised to delete requirement to enter conditions corrected during the audit into the commitment tracking system for external audits, and added environmental and software as elements to consider for audit criteria.
<b>NEW PROCEDURES DURING CURRENT AUDIT</b>					
1	CCP-TP-080	CCP Operating the WMF-610 Real-Time Radiography (RTR) System		1	
2	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis		0	
3	CCP-TP-512	CCP Remote-Handled Waste Sampling		3	

## CORRECTED DURING THE AUDIT

1.0 CDA # 1	2.0 Audit Number: A-10-16	3.0 Responsible Organization INL/CCP	4.0 Identified By/Date <del>James R. Schuetz</del> Dick Blauvelt/6-7-10
----------------	------------------------------	---	--

5.0 Description of Condition Adverse to Quality:

The audit noted a discrepancy in the AK Record with regard to the size of the inner containers for waste stream ID-MFC-S5400-RH. AK Summary Report CCP-AK-INL-540 noted that they were two-gallon containers, while the Radiological Characterization Technical Report for this waste stream identified the containers as one gallon in size, based on RTR and VE data.

~~A second discrepancy was identified in the AK record for waste stream ID NTLNL S3900 described in AK Summary CCP AK INL 009. AK Discrepancy Resolution DR113 for this waste stream indicates that hazardous waste numbers F007 and F009 should be assigned to the stream. However, in an earlier AK Summary Report for this waste stream during certification activities while in storage at NTS, these HWNs were removed and justification was provided in the relevant AK Summary. This discrepancy in the AK record should be resolved. Resolving this discrepancy will not result in the addition or removal of any HWNs for this stream.~~

6.0 Requirements not met (include document number, revision number, and paragraph):

CCP-TP-005, Revision 18, CCP Acceptable Knowledge Documentation, -S4.9

7.0 Actions Taken By Auditee:

The results of VE and RTR provided clear evidence that the inner containers were 1 gallon in size. Therefore a Discrepancy Resolution, DR005, was drafted during the audit to indicate that the correct size is 1 gallon and note that the AK Summary will be revised to reflect this fact. A copy of DR005 is provided with the CDA documentation.

~~Discrepancy resolution DR113 in AK Summary CCP AK INL 009 indicated that waste stream ID NTLNL S3900 should carry both the F007 and F009 hazardous waste numbers. These numbers were removed from the stream in revision 6 of the parent AK Summary Report CCP AK NTS 001 with accompanying DR13.~~

~~These discrepancies were resolved and verified during the audit.~~

~~With regard to the inner container size for waste stream ID MFC S5400 RH, the results of VE and RTR provided clear evidence that the inner containers were 1 gallon in size. A Discrepancy Resolution, DR005, was drafted during the audit to indicate that the correct size is 1 gallon and note that the AK Summary will be revised to reflect this fact.~~

~~To address the discrepancy in the AK record for waste stream ID NTLNL S3900, AK Discrepancy Resolution DR121 was drafted during the audit and added to the AK record. This~~

## CORRECTED DURING THE AUDIT

~~DR detailed the justification for the removal of F007 and F009 from the stream as described in the companion AK Summary CCP AK NTS 001 and thus reconciled all relevant information the AK record for this waste stream.~~

Verified By:

D. Blauvelt / J.R. Schuetz  
Auditor

06/09/10  
Date

Trend Cause Code:

AK-06  
AK - Acceptable Knowledge (AK)  
06 - Documentation of Work

- \* Note:
- 1) All blocks are to be filled out by the audit team member who identified the deficiency.
  - 2) Trend Cause Codes are provided in Attachment II of MP 3.2.

## CORRECTED DURING THE AUDIT

1.0 CDA # 2	2.0 Audit Number: A-10-16	3.0 Responsible Organization INL/CCP	4.0 Identified By/Date Dick Blauvelt 6/8/10
----------------	------------------------------	---	--

**5.0 Description of Condition Adverse to Quality:**

Discrepancy resolution DR113 identified in AK Summary CCP-AK-INL-009 indicated that waste stream ID-NTLLNL-S3900 should carry both the F007 and F009 hazardous waste numbers. However, these hazardous waste numbers were removed from the stream in revision 6 of the parent AK Summary Report CCP-AK-NTS-001 with justification provided in the text of the AK Summary (AKS). This text was not carried forward into subsequent related AKS documents nor was a DR drafted to document the change.

**6.0 Requirements not met (include document number, revision number, and paragraph):**

CCP-TP-005, Revision 18, CCP Acceptable Knowledge Documentation S4.9

**7.0 Actions Taken By Auditee:**

To address the discrepancy in the AK record for waste stream ID-NTLLNL-S3900, AK Discrepancy Resolution DR121 was drafted during the audit and added to the AK record. This DR details the justification for the removal of F007 and F009 from the stream as described in the companion AK Summary CCP-AK-NTS-001 and thus reconciled all relevant information in the AK record for this waste stream. No hazardous waste numbers were added to or removed from the waste stream by these actions. A copy of this DR is provided with the CDA documentation.

Verified By:

Dick Blauvelt/ J.R. Schuetz  
Auditor

6/9/10  
Date

Trend Cause Code:

AK-06  
AK - Acceptable Knowledge (AK)  
06 - Documentation of Work

\* Note: 1) All blocks are to be filled out by the audit team member who identified the deficiency.  
2) Trend Cause Codes are provided in Attachment II of MP 3.2.

<b>Trend Codes</b>	
<b>Code</b>	<b>Activity Category</b>
AK	Acceptable Knowledge (AK)
AA	Audits and Assessments
MT	Control of Measuring and Test Equipment (M&TE)
CA	Corrective Action Program (CARs and NCRs)
CD	Characterization Data
DV	Data Validation
DE	Design Control and Engineering
DC	Document Control
GG	Gas Generation Testing (GGT)
HG	Headspace Gas Sampling and Analysis (HGAS)
MA	Management
ND	Non-Destructive Assay (NDA)
OR	Organization and Resources
PD	Performance Demonstration Program (PDP)
PS	Procurement
QA	QA Program and Implementation
RT	Real-Time Radiography (RTR)
RI	Receiving / Receipt Inspection
RM	Records Management
SA	Safety/Operations
ST	Sampling Techniques
SW	Software
TQ	Training and Qualifications
TR	Transportation
TL	TRUPACT-II Leak Testing
VE	Visual Examination (VE)
WH	Waste Handling Operations
WP	Work Processes

<b>Code</b>	<b>Deficiency Category</b>
01	Definition of Work Process and Proceduralization
02	Identification of Work Steps
03	Training Materials and/or Training Presentations
04	Untrained Personnel
05	Performance of Work
06	Documentation of Work
07	Records Processing