



Department of Energy
Carlsbad Field Office
P. O. Box 3090
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January 7, 2004



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

Subject: Transmittal of the Final Audit Report for the Argonne National Laboratory-East (ANL-E), Central Characterization Project (CCP) (A-04-03)

Dear Mr. Zappe:

This letter transmits the ANL-E, CCP Audit Report for the processes performed to characterize and certify waste as required by Section II.C.2.c of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit. The report contains the results of the audit performed. The audit was conducted October 6-9, 2003.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Should you have any questions concerning this audit report, please contact the CBFO Quality Assurance Manager, Ava L. Holland, at (505) 234-7423.

Sincerely,


Dr. Inés R. Triay
Manager

Enclosure

040104



Mr. Steve Zappe

-2-

January 7, 2004

cc: w/o enclosure

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U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

FINAL AUDIT REPORT
OF
ARGONNE NATIONAL LABORATORY – EAST
UTILIZING THE
CENTRAL CHARACTERIZATION PROJECT

AUDIT NUMBER A-04-03

October 6 – 9, 2003

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



Prepared by: Pete V. Rodriguez
Pete V. Rodriguez, CTAC
Audit Team Leader

Date: 1/7/04

Approved by: Ava L. Holland
Ava L. Holland, CBFO
Quality Assurance Manager

Date: 1/7/04

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-04-03 was conducted to re-evaluate the adequacy, implementation, and effectiveness of the Argonne National Laboratory – East Central Characterization Program (ANL-E/CCP). This re-certification audit was conducted October 6 – 9, 2003, in Carlsbad, New Mexico, and re-evaluated the CCP transuranic (TRU) waste characterization and certification activities related to Summary Category Groups S3000 homogeneous solid waste and S5000 retrievably stored debris waste streams. The audit team assessed the adequacy, implementation, and effectiveness of both technical and quality assurance (QA) activities. Solids sampling and analysis characterization activities for waste streams from Summary Category Group S3000 were assessed during previous CBFO Audits A-03-15 and A-03-26.

With the absence of physical characterization equipment, the audit scope and methodology consisted of an extensive review of the batch data reports (BDRs) and other documentation associated with each of the characterization techniques. Evaluation of completed BDRs and associated documentation provided objective evidence of proper implementation of the various characterization processes. This assessment confirmed the CCP programmatic interfaces established with ANL-E, the CCP administrative controls needed to manage the characterization activities, and the characterization processes and activities previously conducted at ANL-E. The activities evaluated included characterization with mobile waste inspection tomography (WIT), headspace gas (HSG) sampling and analysis using a mobile automated manifold system with gas chromatography/mass spectrometry (GC/MS) and gas chromatography/thermal conductivity detector (GC/TCD) methods, and mobile visual examination (VE) equipment. In addition, the process for developing the Acceptable Knowledge (AK) documentation was evaluated.

The scope of the audit also included review of documentation from solids sampling and analysis activities done by the Idaho National Engineering and Environmental Laboratory (INEEL) for the ANL-E/CCP (see Audit Reports A-03-15 and A-03-26). It should be noted that in Audit A-03-15, CBFO audited the INEEL program for solids sampling and analysis. While CBFO has deemed these programs for solids sampling and analysis acceptable, ultimate approval and certification is pending approval from the New Mexico Environment Department (NMED). Consequently, no solid wastes can be shipped from ANL-E until NMED approves the previous ANL-E/CCP “solids audit.”

The audit team concluded that the CCP technical and QA procedures were adequate relative to the flow-down of requirements from the CBFO Quality Assurance Program Document (QAPD), and the Waste Analysis Plan (WAP) of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP). The audit team also concluded that the assessed activities were being satisfactorily implemented in accordance with the CCP Quality Assurance Project Plan (QAPjP) and the implementing procedures. The established technical processes and the QA program and procedures were also determined to be satisfactorily implemented and effective.

The audit team identified one condition adverse to quality (CAQ) resulting in the issuance of one CBFO corrective action report (CAR). The CAR identified adverse conditions concerning a missing real-time radiography (RTR) videotape documenting the examination of the test drum for ANL-E/CCP RTR operators. This CAR was deemed to be non-significant because the operators were confirmed to be qualified through other qualification documentation. The CAR has been satisfactorily resolved.

Seven isolated deficiencies requiring only remedial corrective actions were corrected during the audit (CDA). No Observations resulted from the audit. Two Recommendations are being offered for management consideration. The CAR, CDAs, and Recommendations are described in Sections 6 and 7.

It should be noted that prior to any future and acceptable characterization by or for the ANL-E/CCP, a CBFO surveillance would be scheduled and performed to verify that the equipment, processes, and procedures remain as currently certified and approved for S5000 debris waste. As for S3000 solids, certification and approval is pending NMED approval of CBFO Audit A-03-26.

2.0 SCOPE AND PURPOSE

2.1 Scope

CBFO Audit A-04-03 was conducted to re-evaluate the adequacy, implementation and effectiveness of the CCP QA Program and technical processes used to perform TRU waste characterization activities for retrievably stored debris and homogeneous solids waste generated at ANL-E, in accordance with the requirements contained in the WIPP HWFP. Compliance was demonstrated and documented by completing the attached B6 checklist for the applicable ANL-E/CCP activities.

The following elements were evaluated in accordance with the CBFO QAPD:

- Organization/QA Program Implementation
- Quality Improvement
- Work Processes
- Inspection and Testing
- Personnel Qualification and Training
- Grading Program
- Documents and Records
- Procurement
- Control of Measuring and Test Equipment
- Nonconformance/Corrective Action
- Audits/Assessments
- Sample Control
- Software Quality Assurance

The following CBFO technical characterization elements were evaluated in accordance with the WAP:

Data Verification and Validation (V&V)
AK
NDE (RTR)
VE
HSG Sampling and Analysis
Solid Sampling and Analysis
Sampling Design
Performance Demonstration Program (PDP)
Waste Stream Profile Forms
WIPP Waste Information System (WWIS) Data Entry

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

- *Waste Isolation Pilot Plant Hazardous Waste Facility Permit*
- *Quality Assurance Program Document (QAPD)*, DOE CBFO-94-1012
- *CCP Transuranic Waste Quality Assurance Characterization Project Plan (QAPjP)*, CCP-PO-001
- *CCP Transuranic Waste Certification Plan*, CCP-PO-002
- Related ANL-E/CCP Quality Assurance and technical implementing procedures (Attachment 4)

3.0 AUDIT TEAMS AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Dennis Miehl	CBFO QA Representative
Martin Navarrete	CBFO QA Representative
Pete Rodriguez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Tammy Bowden	Auditor, CTAC
Prissy Dugger	Auditor, CTAC
Norm Frank	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Jack Walsh	Auditor, CTAC
Chet Wright	Auditor, CTAC
Dick Blauvelt	Technical Specialist, CTAC
Karen Gaydosh	Technical Specialist, CTAC
B.J. Verret	Technical Specialist, CTAC

OBSERVERS

Ben Walker	Environmental Evaluation Group (EEG) Observer
Steve Holmes	NMED Observer
Kevin Krause	NMED Observer
Bob Thielke	NMED Observer/EPA Inspector/Tech Law

4.0 AUDIT PARTICIPANTS

A pre-audit conference was held in the auditorium of the Skeen-Whitlock Building on October 6, 2003. Daily management briefings were held with ANL-E/CCP management to discuss the progress of the audit and potential deficiencies. The audit was concluded with a post-audit conference held in the Skeen-Whitlock Building on October 9, 2003. A list of ANL-E/CCP personnel contacted during the course of the audit is included in Attachment 1.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy and Implementation

This audit was performed to assess ANL-E/CCP's continued ability to characterize S3000 contact-handled homogeneous solids and S5000 contact-handled mixed debris wastes characterized at the ANL-E and INEEL analytical laboratories (for solids sampling and analysis), as applicable.

The audit team concluded that the applicable ANL-E/CCP TRU waste characterization activities, as described in the associated ANL-E/CCP implementing procedures, adequately address the requirements contained in the HWFP. The deficiency identified in Section 6.1 has been satisfactorily resolved and closed. While evaluating the QA program elements, the audit team identified four concerns related to closed nonconformance reports (NCRs) associated with measuring and test equipment (M&TE) (CDA 2); duplicate WWIS QA records (CDA 5); software code management (CDA 6); and an incomplete records inventory and disposition schedule (RIDS) for ANL-E QA records listing (CDA 7). These concerns were determined to be isolated, requiring remedial action only, and were satisfactorily corrected during the audit. Details of audit activities, including specific objective evidence reviewed, are described below and in the attached B6 checklist, which identifies the ANL-E/CCP program documents and procedures that ensure compliance with WAP requirements. Attachment 3 contains examples of the objective evidence reviewed during the audit.

5.2 Technical Activities

5.2.1 Table B6-1 WAP Checklist

The B6-1 WAP checklist addresses program requirements from an overall management perspective. It documents the verification that the waste characterization strategy, as defined in the WAP, is implemented using controlled procedures. This audit assessed ANL-E/CCP's continued ability to characterize Summary Category Groups S3000 (homogeneous solid waste) and S5000 (debris waste streams). Objective evidence to evaluate the implementation of the associated characterization activities was selected and reviewed. This objective evidence included BDRs, sampling records, and training documentation for ANL-E/CCP personnel associated with gas sampling and analysis, RTR, 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 data quality objectives (DQOs)
- Reporting the final waste characterization information to WIPP

The flow of data from the point of generation to incorporation on the Waste Stream Profile Form (WSPF) for each characterization technique was reviewed to ensure that all applicable requirements were included in the operating procedures. Specific procedures audited and the objective evidence reviewed are described in more detail in the following sections.

The ANL-E/CCP demonstrated compliance with the characterization requirements of the WAP through documentation, which demonstrated proper implementation of the various characterization processes and activities. ANL-E/CCP provided combined sampling and analysis BDRs AEHSG01081503a and AEHSG01082203a (containing sampling and gas analytical batch information); radiography BDRs AERTR029, AERTR040, AERTR038, AERTR024, AERTR055, AERTR056, AERTR007 and AERTR015; and VE BDRs AEMover042903a, AEMover060503a, AEMover070703a, AEMover071703a and AEMover080103a. The project-level data verification and validation process was evaluated by reviewing the following BDRs (copies of all referenced BDRs are included in Attachment 3):

- RTR BDRs AERTR030, AERTR050, and AERTR044
- VE BDRs AEMover062603c, AEMover071703c, and AEMover71703b
- HSG BDRs AEHSG01052703a, AEHSG01042803a, and AEHSH01050703a

The AK and the auditable records were reviewed in detail for waste streams S3000 and S5000. The AK record was reviewed to demonstrate that the required information was present and correctly interpreted. The BDRs cited above were used to demonstrate confirmation of AK, reconcile DQOs, prepare a WSPF, and transmit data to WIPP using the WWIS.

A WSPF and related summarized characterization information were reviewed to establish the objective evidence for reporting waste characterization information to WIPP. The form was completed using information from characterization processes. An actual WSPF has been prepared and was submitted to CBFO prior to any shipments, as required. The form was reviewed and approved by the CBFO when the waste stream had been fully characterized, and the site was approved to ship waste.

Demonstration of AK confirmation, DQO reconciliation, preparation of a WSPF, and the transmittal of data to WIPP for the S3000 homogeneous solids waste stream was also satisfactorily verified during the CBFO Audit A-03-26, August 26 and 27, 2003.

5.2.2 Table B6-2 Solids and Soils/Gravel Sampling Checklist

The audit team evaluated the solids sampling and analysis processes through review of the previously discussed BDRs and AK records. Also, Audit A-03-26 was performed August 26 and 27, 2003, to assess the ANL-E/CCP ability to properly implement the use of the INEEL independent analytical laboratory services, perform sample design and reconciliation of DQOs, and complete the required AK confirmation activities for the homogeneous solid waste stream. The audit team evaluated the ANL-E/CCP incorporation of the INEEL independent analytical laboratory services to provide solids sampling and analysis and verified the interfaces to ensure that the laboratory data were adequate to complete the waste characterization and AK confirmation process.

While CBFO has deemed the solids sampling and analysis program acceptable, ultimate approval and certification is pending approval from the NMED. Consequently, no solid wastes can be shipped from ANL-E until NMED approves the previous ANL-E/CCP "solids audit" (A-03-26).

5.2.3 Table B6-3 Acceptable Knowledge Checklist

This audit was performed to assess the continued ability of ANL-E/CCP to characterize S3000 and S5000 homogeneous solids and retrievably stored debris waste streams. Items on the AK checklist are intended to ensure that the ANL-E/CCP has an AK process in place to:

- Train personnel in data collection requirements
- Assemble collected data into a coherent narrative detailing the waste generation and constituents
- Segregate the waste into like waste streams
- Perform Resource Conservation and Recovery Act (RCRA) characterization for those waste streams
- Confirm those characterizations using sampling and analysis
- Provide an auditable set of records to support the characterization

The AK process was evaluated by reviewing AK summary reports, source documents, and other applicable documentation related to CH mixed debris (362 55-gallon drums [~75 cubic meters]) and CH mixed homogeneous solids (70 55-gallon drums and 2 85-gallon overpack waste containers [~15 cubic meters]). Specific AK documents included: CCP-AK-ANLE-001, *CCP Acceptable Knowledge Summary Report for Argonne National Laboratory-East Contact-Handled TRU Waste Facility Maintenance and Laboratory Operations*, and CCP-AK-MURR-01, *CCP Acceptable Knowledge Summary Report for Missouri University Research Reactor TRUMP-S Project*.

The AK checklist was completed, in part, by reviewing the documents cited above. Additional documentation supporting the AK summary documents and AK source document review summaries are contained in Attachment 3 to support the entries in Table B6-3.

The AK process includes provision to identify information that conflicts with what is expected in a waste stream (confirmation processes) and a method by which these conflicts can be resolved. The audit team reviewed several examples of the resolution of discrepancies identified in the AK record and examined the process for dealing with prohibited items in the debris waste stream. The discrepancy resolution procedure is CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*.

The procedures used by the site to assemble, evaluate, document, and reconcile sampling and analysis results include CCP-TP-001, *CCP Project Level Data Validation and Verification*; CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*; CCP-TP-003, *CCP Sampling Design and Data Analysis for RCRA Characterization*; and CCP-TP-005, *CCP Acceptable Knowledge Documentation*. These procedures were reviewed for adequacy, and their implementation was assessed during the audit. The AK requirements include procedure content and specific requirements for retrievably stored waste, and ensure that the AK summary includes all mandatory information required by the WAP.

Reports and records used to document the basis of ANL-E/CCP AK were evaluated; copies of pages used for objective evidence can be found in Attachment 3. The reports were found to be satisfactory and the records properly maintained as QA records. Attachment 3 contains a list of AK documentation reviewed in support of Procedure CCP-TP-005.

The confirmatory test process was also reviewed and BDRs were examined for three debris drums that had been processed through the complete required confirmatory testing, including project level V&V. The audit team examined the CBFO-approved WSPF for mixed debris, including the following attachments: an AK Summary, the Characterization Information Summary (CIS), and the DQO checklists. Also reviewed were the processes for UCL₉₀ determination, nondestructive evaluation (NDE)/VE comparison reports, an AK Accuracy Report, and determination of lots.

The audit team identified concerns related to AK Attachment 5, Hazardous Constituents, and corresponding information in the AK Summary Report. The information in the summary was either incomplete or inconsistent when compared to the information in the attachment. These concerns were determined to be isolated, requiring remedial action only, and were satisfactorily corrected during the audit (CDA 1, Section 6.2).

The audit team determined that the AK procedure, confirmation processes for the reconciliation of DQOs, and the sample design and data analysis processes were adequate with respect to the WAP requirements, satisfactorily implemented, and effective in producing the requisite AK information.

5.2.4 Table B6-4 Headspace Gas Checklist

This audit was performed to assess the continued ability of the ANL-E/CCP to characterize Summary Category Groups S3000 homogeneous solid waste and S5000

retrievably stored debris waste streams. The audit team evaluated the sampling and analysis procedures and operations for organic and inorganic HSG, as performed by the CCP automated manifold system. The CCP HSG sampling operation uses a mobile automated manifold system with gas chromatography/mass spectrometry (GC/MS) and gas chromatography/thermal conductivity detector (GC/TCD) methods. The areas verified through review of documentation were drum preparation, HSG sampling and analysis, and filter change. The following procedures were evaluated:

- CCP-TP-011, *CCP Logbooks and Notebooks*
- CCP-TP-031, *CCP Headspace Gas Sampling Using Automated Manifold*
- CCP-TP-034, *CCP HSG Data Generation and Batch Data Reporting*
- CCP-TP-039, *CCP Preparing and Handling Waste Drums for Headspace Gas*
- CCP-TP-056, *CCP HSG Performance Demonstration Plan*

HSG sampling and analysis activities were evaluated and verified through review and examination of the documents and records generated as a result of procedure implementation. BDRs AEHSG01081503a and AEHSG01082203a were reviewed to evaluate sampling and analysis results against WAP requirements. Documentation specific to these activities (e.g., calibration records, maintenance logbooks, and instrument logbooks) were reviewed to ensure that the mobile operations met QA requirements, as specified in the WAP. Copies of the applicable documentation reviewed are included in the BDRs. Personnel training records were also reviewed for adequacy and compliance to WAP requirements.

The audit team completed the B6-4 checklist while assessing implementation of the applicable procedures. Sampling and analysis operations were verified through review of documentation to ensure conformance to requirements.

Two issues were identified that relate to drum duplicate relative percent difference (RPD) data not being "Z" flagged, and use of a calibration gas past its expiration date (CDAs 3 and 4, Section 6.2). The issues were determined to be isolated deficiencies and were satisfactorily corrected during the audit.

A recommendation regarding certificates of analysis for certified gases/liquids, to be kept by the CCP records group, was offered for management consideration (Recommendation 2, Section 7.2).

The audit team determined that the HSG sampling and analysis processes at ANL-E/CCP were adequate with respect to WAP requirements, satisfactorily implemented, and effective.

5.2.5 Table B6-5 Radiography Checklist

This audit was performed to assess ANL-E/CCP's continued ability to characterize S3000 and S5000 homogeneous solids and retrievably stored debris waste. ANL-E/CCP radiography operations are performed using a mobile WIT system/RTR system.

The following ANL-E/CCP procedures governing the mobile RTR operations were evaluated:

- CCP-TP-045, *CCP RTR #5 Radiography Inspection Operation Procedure*
- CCP-TP-028, *CCP Radiographic Test and Training Drum Requirements*

The ANL-E/CCP RTR operations were evaluated and verified through review and examination of the documents and records generated as a result of procedure implementation. The following BDRs and associated videotapes were reviewed and evaluated to ensure that specific WAP requirements were met: AERTR029, AERTR040, AERTR038, AERTR024, AERTR055, AERTR056, AERTR007 and AERTR015. These reports are included in Attachment 3. Training course material and the RTR test drums were also reviewed for adequacy and compliance to WAP requirements.

One deficiency was noted during the assessment and verification of the videotape documenting the examination of the test drum for ANL-E RTR operators. This CAQ was determined to be non-significant and has been satisfactorily resolved and closed (CAR-04-002, Section 6.1).

A recommendation for a clear statement to be included whenever dubbing is necessary on the audio portion of a videotape was offered for management consideration (Recommendation 1, Section 7.2).

The audit team concluded that the ANL-E/CCP RTR procedures and processes were adequate, satisfactorily implemented, and effective.

5.2.6 Table B6-6 VE Checklist

This audit was performed to assess the continued ability of the ANL-E/CCP VE process to characterize S3000 and S5000 homogeneous solids and retrievably stored debris waste streams. The VE process was evaluated to determine the effectiveness of VE as a confirmation of the NDE process and as a characterization method that can be used in lieu of NDE. VE performed as a confirmation of NDE or in lieu of NDE is recorded on audio/videotape and the results are documented on standard forms in accordance with procedure CCP-TP-013, *CCP Waste Visual Examination and Packaging*.

ANL-E/CCP VE activities were evaluated and verified through review and examination of the documents and records generated as a result of procedure implementation. The following BDRs and associated videotape records were examined and evaluated to ensure that specific WAP requirements were met: AEMover042903a, AEMover060503a, AEMover070703a, AEMover071703a and AEMover080103a. These reports are included in Attachment 3.

The training course content for operators and VE experts was reviewed to verify that all WAP requirements were included. Training files were reviewed for VE experts and

operators to verify that individuals responsible for performing the visual examination of drums had been properly trained and qualified.

The audit team determined that the VE process used for S3000 and S5000 waste was adequate, satisfactorily implemented, and effective.

5.3 General

Results of Previous Audits

The Observations and CARs resulting from previous ANL-E/CCP certification audits A-02-03, A-03-13 and A-03-26 were examined and it was determined that the conditions identified in the audits had been corrected.

Changes in Program or Operation

The HWFP portions of the audit were performed in accordance with the latest B6 checklists, which incorporate all the Class 1, Class 2, and Class 3 modifications to the HWFP. ANL-E/CCP has not implemented any changes in the program or operation.

New Programs or Activities Being Implemented

No new programs or activities have been implemented since that last certification audit.

Changes in Key Personnel

No changes in ANL-E/CCP key personnel have occurred since the last certification audit. ANL-E/CCP has certified additional personnel as alternates for the key positions.

6.0 SUMMARY OF DEFICIENCIES

6.1 Corrective Action Reports

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

Condition Adverse to Quality (CAQ) – 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 WAP-related deficiency, requiring the issuance of one CAR, was identified during the audit. The CAR describes a missing RTR videotape documenting the examination of the test drum for ANL-E/CCP RTR operators. This CAR was deemed to be non-significant because the operators were confirmed to be qualified through other

qualification documentation. This CAQ has been corrected and the CAR has been closed (CBFO CAR 04-002).

6.2 Deficiencies Corrected During the Audits (CDAs)

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 using the following definitions. Once a determination is made that the CAQ is not significant, the audit team members, in conjunction with the ATL, determine if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit (CDA). Upon determination that the CAQ is isolated, the audit team members, in conjunction with the ATL, evaluate/verify any objective evidence/actions submitted or taken by the audited organization and determine if the condition was corrected in acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as a CDA.

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

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and where 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 dated (isolated), and one or two individuals who have not completed a reading assignment.

Seven WAP-related discrepancies that resulted in CDAs were identified and corrected during this audit. The isolated deficiencies and CDA are as follows:

CDA 1

AK Attachment 5, Hazardous Constituents, lists several metals from WAP Table B-1 that are listed as expected in the ANL-E Contact-Handled Debris Mixed (AECHDM) waste stream with no justification or explanation in the AK summary. In addition, four additional hazardous constituents listed on page 5 of Attachment 5 cannot be reconciled with information in the AK summary. This concern was satisfactorily resolved by making appropriate changes to Attachment 5 of Procedure CCP-TP-005, by reconciling hazardous constituents with information in the AK summary, and by initiating appropriate procedural changes to CCP-TP-005.

CDA 2

Final disposition, validation, closure, and acceptance of NCR-ANL-E-507-02, R/O was performed without the objective evidence of the measuring and test equipment (M&TE) recalibration being provided to the CCP M&TE Custodian for updating of the M&TE history file and CCP M&TE database. In addition, copies of closed NCRs associated with M&TE are not being returned to the originator and/or M&TE Custodian to ensure

update of the M&TE files and CCP database. This concern was resolved by initiating a change to CCP-QP-005 (change to freeze file for CCP-QP-005), adding additional steps to mitigate the aforementioned concern.

CDA 3

In BDR AEHSG 012203a, the drum duplicate relative percent difference (RPD) for acetone exceeded the 25% limit. An NCR was written, but the data were not "Z" flagged. This concern was resolved by correcting the data (adding the "Z" flag), updating checklists, and issuing an NCR.

CDA 4

A bromofluorobenzene (BFB) calibration gas was used past its expiration date in one sample analysis. This concern was satisfactorily resolved by removing the drum from the waste stream and WWIS, returning it to ANL-E, and issuing NCR-ANLE-0520-03.

CDA 5

The record WWIS Data Approval/Rejection Reports under Payload Characteristics is a duplicate of the same record under Certification Module. The duplicate record is not retained in QA records. This concern was satisfactorily resolved by the initiation of a change to Procedure CCP-TP-030 (change to freeze file) to remove the duplicate records out of Sections 4.14.8 and 5.1.1.

CDA 6

The Software Code Management: Code Information Summary has main headings for software category in addition to a column containing software category. The information is sometimes conflicting. The main heading System Software has Excel sheets listed as commercial software in the column. This concern was resolved by a revision to the Software Code Management: Code Information Summary and correcting both the main headings and the category column.

CDA 7

The records inventory and disposition schedule (RIDS) for ANL-E did not include the QA records listed in CCP-TP-030, R9, for Certification Module or Payload Characteristics. All required records were being retained in QA records. This concern was satisfactorily resolved via initiation of a CCP Records Inventory Worksheet to include the records on the next revision of the RIDS.

7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify conditions that warrant input by the audit team to the audited organization regarding potential problems or suggestions for improvement. The audit team members, in conjunction with the ATL, evaluate these

conditions and classify them as Observations or Recommendation, using the following definitions. Once a determination is made, the audit team members, in conjunction with the ATL, categorize the conditions appropriately.

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

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

7.1 Observations

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

7.2 Recommendations

The audit team made two Recommendations for improvement of the CCP processes and procedures. The Recommendations, provided to CCP management for consideration, are described below:

Recommendation 1

In BDR AEMover073203a, the audio portion of the videotape was lost. An NCR was written and it was determined that audio should be dubbed in. No statement was made, however, that the videotape was dubbed. The audit team recommended that a clear statement be added to future tapes when dubbing is necessary.

Recommendation 2

Certificates for seven of eight certified gases/liquid standards were not available on-site. The audit team therefore recommended that all certificates of analyses be kept by the CCP records organization.

8.0 LIST OF ATTACHMENTS

Attachment 1:	Personnel Contacted During the Audit
Attachment 2:	Corrective Action Supporting Documentation
Attachment 3:	Objective Evidence
Attachment 4:	ANL-E/CCP Implementing Procedures

PERSONNEL CONTACTED DURING AUDIT A-04-03				
NAME	TITLE/ORG	PRE AUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Aldrich, Beth	L&M Document Services		X	
Ashford, Angela	L&M Doc. Services/CCP		X	
Becker, David	CCP AK/LANL	X	X	
Bickerstaff, Sheila	CCP Record Custodian	X	X	X
Campos-Hernandez, Lisa	CCP/WWIS Data Entry		X	
Carter, Donna	L&M/CCP		X	
Clifton, Erin	L&M/CCP		X	
Fesmire, Courtland	CCP/SPM	X	X	X
Fisher, A. J.	CCP QA Manager	X	X	X
Freeze, Deborah	CCP Training Specialist	X	X	X
Franco, Joe	CCP/Project Manager	X	X	X
Gomez, Christine	CCP/WTS SPQAO		X	X
Gran, J.F.	CCP SPQAO		X	
Guerin, Dave	CCP/LANL-CO, AKE		X	
Haar, Dave	CCP Program Manager	X	X	X
Hackney, Leanne	CCP/WTS		X	
Hedahll, Tim	Deputy Manager, NTP		X	X
Mooney, Dean	CCP, SPQAO		X	X
Peters, Kevin	CCP/Tech. Specs., AKE	X	X	X
Porter, Larry	CCP e-QA/WTS	X	X	X

PERSONNEL CONTACTED DURING AUDIT A-04-03				
NAME	TITLE/ORG	PRE AUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Price, Lisa	L&M Document Services		X	
Quintana, Doris	CCP, SPQAO		X	
Quintana, Irene	CCP, SPQAO		X	
Rose, Steve	CCP/WTS OPPS	X	X	X
Schoen, Doug	CCP - Procurement		X	
Sharif, Farok	Manager, NTP	X	X	X
Smith, Tyrone	CCP/WTS-NTS M&TE Custodian		X	
Speed, David	WWIS Team Lead		X	
Stepzinski, Chuck	CCP Tech. Writer, L&M		X	
Stroble, J.R.	WTS/CCP, WCO Manager, Project Cert.		X	

ANL-E/CCP IMPLEMENTING PROCEDURES (A-04-03)		
Number of Documents	Procedure Number/Rev. No.	DOCUMENT TITLE
1	CCP-PO-002,	CCP Transuranic Waste Certification Plan
2	CCP-PO-007	CCP/ANL-E Interface Document
3	CCP-PO-008	CCP Quality Assurance Interface with the WTS QA program
4	University of Chicago/WTS Contract No. 2F-01083 Appendix B-1	Argonne National Laboratory-East (ANL-E) Statement of Work for Characterization of ANL-E TRU Waste, Rev 1, 01/23/03 Contract No. 2F-01083
5	CCP-QP-001	CCP Graded Approach
6	CCP-QP-002	CCP Training and Qualification Plan
7	CCP-QP-004	CCP Corrective Action Management
8	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
9	CCP-QP-006	CCP Corrective Action Reporting and Control
10	CCP-QP-008	CCP Records Management
11	CCP-QP-009	CCP Work Control Process
12	CCP-QP-010	CCP Document Preparation, Approval and Control
13	CCP-QP-011	CCP Notebooks & Logbooks
14	CCP-QP-015	CCP Procurement
15	CCP-QP-016	CCP Control of Measuring, Testing and Data Collection Equipment
16	CCP-QP-017	CCP Identification and Control of Items
17	CCP-QP-018	CCP Management Assessment
18	CCP-QP-019	CCP Quality Assurance Reporting to Management
19	CCP-QP-021	CCP Surveillance Program
20	CCP-QP-022	CCP TRU Software Quality Assurance
21	CCP-QP-023	CCP Handling, Storage, and Shipping
22	CCP-QP-026	CCP Inspection Control
23	CCP-QP-27	CCP Test Control
24	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
25	CCP-QP-031	CCP Using e-QA and the Training Database
26	CCP-QP-035	CCP System Qualification Status Using the e-QA System
27	CCP-TP-001	CCP Project Level Data Validation and Verification
28	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
29	CCP-TP-003	CCP Sampling Design and Data Analysis for RCRA Characterization
30	CCP-TP-005	CCP Acceptable Knowledge Documentation
31	CCP-TP-013	CCP Waste Visual Examination and Repackaging
32	CCP-TP-028	CCP Radiographic Test and Training Drum Requirements
33	CCP-TP-030	CCP WWIS Data Entry and TRU Waste Certification
34	CCP-TP-031	CCP Headspace Gas Sampling Using Automated Manifold
35	CCP-TP-034	CCP HSG Data Generation and Batch Data Report
36	CCP-TP-039	CCP Preparing and Handling Waste Drums for Headspace Gas
37	CCP-TP-041	CCP Preparing and Handling Waste Drums for Visual Examination
38	CCP-TP045	CCP RTR#5 Radiography Inspection Operating Procedure
39	CCP-TP-056	CCP HSG Performance Demonstration Plan
40	CCP-TP-060	CCP Container Management at Argonne National Laboratory-East