



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

DEC - 9 2013



Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 E. Rodeo Park Dr. Bldg. 1
Santa Fe, New Mexico 87505-6303

Subject: Transmittal of the Final Audit Report for Recertification Audit A-14-01 of the Advanced Mixed Waste Treatment Project

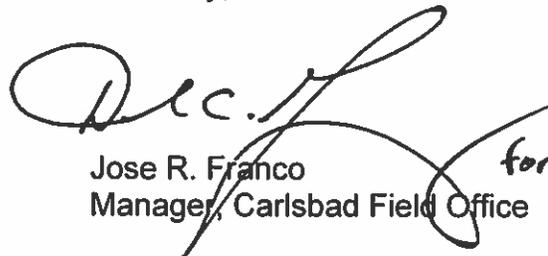
Dear Mr. Kieling:

This letter transmits the Final Audit Report for Carlsbad Field Office (CBFO) Recertification Audit A-14-01 of the Advanced Mixed Waste Treatment Project for processes performed to characterize and certify waste in accordance with the Waste Isolation Pilot Plant Hazardous Waste Facility Permit. Recertification Audit A-14-01 was conducted October 1-3, 2013.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with 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.

If you have any questions, please contact Mr. Oba L. Vincent, Acting Director, Office of Quality Assurance, at (575) 234-7525.

Sincerely,


Jose R. Franco
Manager, Carlsbad Field Office

for Jose R. Franco

Enclosure



Mr. John E. Kieling

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DEC - 9 2013

cc: w/Report Narrative

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Site Documents	ED
WWIS Database Administrators	ED
R. Chavez, RES	ED
W. Most, RES	ED
L. Pastorello, RES	ED
RCRA Chronology Record	ED
WIPP Operating Record	
CTAC QA File	
CBFO M&RC	

*ED denotes electronic distribution

**U.S. Department of Energy
Carlsbad Field Office**

CONTENT MAP

**Final Audit Report of Audit A-14-01 of the
Advanced Mixed Waste Treatment Project (AMWTP)
Waste Characterization and Certification
Program**



**Audit Number A-14-01
October 1 – 3, 2013**

CONTENT MAP

This box contains the Final Audit Report of CBFO Audit A-14-01 of the of the AMWTP Quality Assurance Program and the AMWTP Transuranic (TRU) Waste Characterization and Certification Program conducted October 1- 3, 2013. The box also contains a list of objective evidence used to conduct the audit. The documents have been organized into color-coded folders, one each for the AMWTP Implementing Procedures (purple folder), Final Audit Report (manila folder), the C-6 Checklist (brown folder), General Information (green folder), Solids and Soils/Gravel Sampling (light blue folder), Acceptable Knowledge (blue folder), Headspace Gas (brown folder), Real-Time Radiography (red folder), and Visual Examination (yellow folder). The list below identifies each document by name and number and indicates where each may be found.

CONTENT MAP	Black Folder
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Final Audit Report	Manila Folder
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Final Audit Report Attachment 1 – Personnel Contacted During the Audit Attachment 2 – Personnel Contacted During the Audit by Subject Area Attachment 3 – Objective Evidence Compiled During the Audit (provided in boxes) Attachment 4 – Table of Audited Documents Attachment 5 – Lists of Processes and Equipment Evaluated During the Audit Attachment 6 – Procedure Revision Matrix	
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C6 Checklist – May 8, 2012	Brown Folder
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C6-1 Waste Analysis Plan (WAP) Checklist C6-2 Solids and Soils/Gravel Sampling (SOL) Checklist C6-3 Acceptable Knowledge (AK) Checklist C6-4 Headspace Gas Checklist	
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C6 Checklist – March 13, 2013	Brown Folder
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C6-1 Waste Analysis Plan (WAP) Checklist C6-2 Acceptable Knowledge (AK) Checklist C6-3 Radiography (RTR) Checklist C6-4 Visual Examination (VE) Checklist	
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AMWTP TRU Program Implementing Procedures Audited	
Purple Folder	

See Final Report Attachment 4 for List of Audited AMWTP Procedures	
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Attachment 3 - Objective Evidence	
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General Information (Checklist C6-1) Waste Analysis Plan (WAP)	Green Folder
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GEN1	Batch Data Reports - RTR12-00137, RTR13-00002, RTR13-00023, RTR13-00053, and RTR13-00187
GEN2	Batch Data Reports - VEB12-01000, VEB13-00001, VEB13-, 00444, VEB13-00475, VNC13-00084, and VNC13-00093

GEN3	<p>Batch Data Reports - SSC12-00006 and SSG12-00007</p> <p>Batch Data Reports - HS112-00015 and HS113-00002</p> <p>Waste Stream Profile Packages with WSPF, CIS, and AK Summary</p> <p>Surveillance Reports (GEN-6)</p> <p>Solids Random Sample Selection for BN222- Lot 1-SPC-006-09.</p> <p>Sampling Plan for BNINW218 – Lot 3-Rev. 1-SPC-037-2005.</p> <p>Sampling Report for BNINW218-Lot 3</p> <p>Subsequent Headspace Gas Random Sample Selection Memorandum for BN510.1 Boxline Lot 3-SPC-002-12; Final Subsequent Headspace Gas Random Sample Selection Memorandum for BN510.1 Boxline Lot 3-SPC-012-13; and Headspace Gas Sampling Report Memorandum for BN510.1 Boxline Lot 3-SPC-011-13</p> <p>Nonconformance Reports: 71815, 74039, 73050, and 73196</p> <p>Nonconformance Reports: 76400 , 7829, 80435, 73383 , 72426, 78168, 78599, and 78554</p> <p>Waste Characterization Case Files containing WWIS/WDS Waste Container Data Report, Waste Certification Data Entry Form (WCDEF) and supporting forms and data for containers: 10011856, 10106235, BN10485968, BN10493496, BN10474194</p> <p>Project Record Categories, Classification, Disposition, and Retention Matrix (Appendix B of MP-DOCS-18.2.)</p> <p>Qualification records for selected AMWTP personnel</p> <p>Hazardous Waste Manifests: 001943007GBF, 001600850GBF</p> <p>Co-Located Solid Sampling F-Test Results-JHK-01-12 and Co-Located Core Sample Control Charts</p> <p>Training records for AKEs and SPMs</p>	
GEN4		
GEN5		
GEN6		
GEN7		
GEN8		
GEN9		
GEN10		
GEN11		
GEN12		
GEN13		
GEN14		
GEN15		
GEN16		
Solids and Soils/Gravel Sampling (Checklist C6-2) Light Blue Folder		
SOL1		Manufacturer's Material Specifications for coring tools and sampling equipment
SOL2	Vendor Cleaning and Equipment Blank Sampling procedure	
SOL3	Cleanliness Certification of Analysis for coring and sampling equipment	
SOL4	Core 4 barrel assembly and schematics	
SOL5	Liner diagram	
SOL6	Vendor Statement of Work	
SOL7	Batch Data Reports - SSC12-00006 and SSG12-00007	
SOL8	Form 1599, Solid Sampling Checklist	
SOL9	Maximo Spare Parts Inventory	
SOL10	Chain of Custody Forms: 0000547, 0000548	
SOL11	Example of sample label	
SOL12	Example of Custody Seal	
Acceptable Knowledge (Checklist C6-3) Blue Folder		
AK1	AK Summary for Supercompacted Debris Waste (BN510.1), RPT-TRUW-83, Rev. 5	
AK2	AK Summary for Supercompacted Debris Waste, RPT-TRUW-83, Rev. 6	
AK3	AK Summary for Solidified Pu Recovery Incinerator Waste (BN222), PT-TRUW-77, Rev.1	

AK4	AK Summary for Bldg. 374 Sludge (BNINW218), RPT-TRUW-15, Rev. 12
AK5	AK Baseline Document for AMWTP Waste, RPT-TRUW-06, Rev.14
AK6	AK Document for INL Stored TRU Waste-Rocky Flats Plant, RPT-TRUW-56, Rev. 5
AK7	AMWTP Waste Stream Designations, RPT-TRUW-12, Rev. 20
AK8	Waste Matrix Code Reference Manual, RPT-TRUW-05, Rev. 32
AK9	Waste Stream Profile Form and attachments for waste stream BN510.1
AK10	Waste Stream Profile Form and attachments for waste stream BN510.2
AK11	Waste Stream Profile Form and attachments for waste stream BN222
AK12	Waste Stream Profile Form and attachments for waste stream NINW218
AK13	AK Source Document Summaries for waste stream BN510.1
AK14	AK Source Document Summaries for waste stream BN510.2
AK15	AK Source Document Summaries for waste stream BN222
AK16	AK Source Document Summaries for waste stream BNINW218
AK17	AK Forms 1066 TRU Waste Management AK Checklist and 1067 TRU Waste Stream AK Documentation Checklist for waste streams BN510.1, BN510.2, BN222, and BNINW218
AK18	AK Discrepancy Resolutions in the AK record
AK19	AK Discrepancy Resolutions at Characterization and AK Reevaluations
AK20	NCRs for prohibited items
AK21	Database Electronic Hold on Container
AK22	WTS Database Container Inventory and screen shots
AK23	Memos supporting WMPWE for waste streams BN510.1, BN510.2, BN222, & BNINW218
AK24	"Hold" Tag
AK25	Internal Assessments
AK26	AK Accuracy Report for waste streams BN510.1, BN510.2, BN222, and BNINW218
AK27	AK Source Document Reference List
AK28	AK Resolution Ledger
AK29	HSG Random Container Selection Memos for waste stream BN510.1
AK30	HSG Summary Reports for BN510.1
AK31	Solids Random Container Selection Memos for waste stream BN222 and BNINW218
AK32	Solids Summary Reports for waste streams BN222 and BNINW218
AK33	Batch Data Report - RTR07-01762
AK34	Batch Data Report - RTR07-01733
AK35	Batch Data Report - RTR07-01683
AK36	Batch Data Report - RTR13-00072
AK37	Batch Data Report - RTR13-00094
AK38	Batch Data Report - RTR13-00080
AK39	Batch Data Report - RTR13-00047
AK40	Batch Data Report - RTR05-06319
AK41	Batch Data Report - RTR04-00036
AK42	Batch Data Report - VEB08-00127
AK43	Batch Data Report - VEB13-00071
AK44	Batch Data Report - VEB13-00072
AK45	Batch Data Report - VEB12-00073

AK46	Batch Data Report - HS113-00002
AK47	Batch Data Report - SSG08-00011
AK48	Batch Data Report - ALD08017V
AK49	Batch Data Report - ALD08015S
AK50	Batch Data Report - ALD08011N
AK51	Batch Data Report - ALD08033M
AK52	Batch Data Report - SSC05-00041
AK53	Batch Data Report - ALD05004V
AK54	Batch Data Report - ALD05004S
AK55	Batch Data Report - ALD05004N
AK56	Batch Data Report - ALD05006M
AK57	Data Reconciliation reports for BN510.1
Headspace Gas (Checklist C6-4) Brown Folder	
HSG1	Batch Data Report - HS112-00015
HSG2	Batch Data Report - HS113-00002
HSG3	Examined HS ICAL IC1_082012BA
HSG4	Examined HS MDL study HS112-00013
HSG5	Examined PDP memo 2/13/13 & 3/21/13
Real-Time Radiography (Checklist C6-5) Red Folder	
RTR1	Batch Data Reports: RTR12-00139, RTR12-00170, RTR12-00187, RTR13-00002, RTR13-00004, RTR13-00105, RTR13-00121, RTR13-00138, and RTR13-00181
RTR2	NCR 65586, INST-FOI-17
RTR3	NCR Packages: AKR-13-791: NCR 79574, NCR 79577; AKR-13-793: NCR 79683
Visual Examination (Checklist C6-6) Yellow Folder	
VE1	Batch Data Reports - VEB12-01150, VEB12-01157, VEB12-01172, VEB13-00390, VEB13-00424, VEB13-00476, and VEB13-00493
VE2	Training & Qualification Records for VE Operators, VE Independent Technical Reviewer and VE Experts
VE3	Appointment Memorandum for VE Experts

U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

FINAL AUDIT REPORT

OF THE

ADVANCED MIXED WASTE TREATMENT PROJECT

TRU WASTE CHARACTERIZATION AND CERTIFICATION ACTIVITIES

IDAHO FALLS, IDAHO

AUDIT NUMBER A-14-01

October 1–3, 2013



Prepared by: Cindi Castillo
Cindi Castillo, CTAC
Audit Team Leader

Date: 11/20/13

Approved by: Oba Vincent
Oba Vincent, CBFO
Acting Quality Assurance Director

Date: 12-4-13

1.0 EXECUTIVE SUMMARY

U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Recertification Audit A-14-01 was conducted to evaluate the adequacy, implementation, and effectiveness of Advanced Mixed Waste Treatment Project (AMWTP) transuranic (TRU) waste characterization and certification activities performed at the Idaho National Laboratory (INL), relative to the applicable requirements in the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) and the *CBFO Quality Assurance Program Document* (QAPD).

The audit was performed at the INL site and the AMWTP Energy Drive Facility (EDF) in Idaho Falls, Idaho, October 1 through 3, 2013. The audit team concluded that, overall, the AMWTP technical and quality assurance (QA) programs, as applicable to the audited activities, were adequate in addressing HWFP *Waste Analysis Plan* (WAP) and QAPD requirements. The audit team concluded that, overall, the defined AMWTP programs for characterizing contact-handled (CH) Summary Category Group (SCG) S3000 homogeneous solids and CH SCG S5000 debris waste were satisfactorily implemented and effective in achieving the desired results.

The audit team identified five concerns during the audit, as described in the interim audit report. No WAP-related deficiencies were identified.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of the AMWTP TRU waste characterization and certification activities for CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste.

The following general areas, as required by Attachment C6, Section C6-3 of the HWFP, were audited:

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

The following WAP-related QA elements were audited:

- Personnel Qualification and Training
- Nonconformances
- Records

The following WAP-related waste characterization technical elements were audited for CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste:

- Acceptable Knowledge (AK) including waste certification (i.e., Waste Stream Profile Forms)
- Project-Level Data Validation and Verification (V&V)
- Solids Sampling and Analysis (SS&A)
- Headspace Gas Sampling and Analysis (HSG S&A)
- Real-time Radiography (RTR)
- Visual Examination (VE)
- WIPP Waste Information System/Waste Data System (WWIS/WDS)

Evaluation of adequacy of AMWTP documents was based on the current revisions of the following documents:

- *CBFO Quality Assurance Program Document*, DOE/CBFO-94-1012
- Hazardous Waste Facility Permit, Waste Isolation Pilot Plant, EPA No. NM4890139088-TSDF, the New Mexico Environment Department

Programmatic and technical checklists were developed to evaluate activities associated with the current revisions of the following documents:

- *AMWTP Certification Plan for INL Transuranic Waste*, MP-TRUW-8.1
- *AMWTP Quality Assurance Project Plan*, MP-TRUW-8.2
- Related AMWTP QA and technical implementing procedures

Pursuant to an agreement reached with the New Mexico Environment Department (NMED) (reference CBFO memorandum CBFO:OQA:DSM:MAG:13-1431 dated May 30, 2013), the audit team used C6 checklists dated May 8, 2012, to evaluate chemical sampling and analysis activities performed subsequent to the last recertification audit (A-13-01, conducted in October 2012) and before the HWFP modification issued March 13, 2013, which eliminated those activities. The audit team used the C6 checklists dated March 13, 2013, to evaluate activities not associated with chemical sampling and analysis. To ensure clarity, this report identifies the instances where the May 8, 2012 C6 checklists were used.

2.2 Purpose

Audit A-14-01 was conducted to assess AMWTP waste characterization activities related to the certification of CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste for compliance to the HWFP WAP requirements. The audit team also evaluated specific QA elements relating to WAP requirements.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Martin Navarrete	Management Representative, CBFO Office of Quality Assurance
Dennis Miehls	QA Representative, CBFO
Cindi Castillo	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Tammy Bowden	Auditor, CTAC
Harley Kirschenmann	Auditor, CTAC
Greg Knox	Auditor, CTAC
Katie Martin	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Berry Pace	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Jim Schuetz	Auditor, CTAC
Roger Vawter	Auditor, CTAC
Dick Blauvelt	Technical Specialist, CTAC
Rhett Bradford	Technical Specialist, CTAC
Paul Gomez	Technical Specialist, CTAC
Priscilla Martinez	Technical Specialist, CTAC
B.J. Verret	Technical Specialist, CTAC

OBSERVERS

Robert (Bob) Toro	DOE Headquarters - Office of Environmental Management, Quality Assurance
Norma Castaneda	CBFO Office of the National TRU Program (NTP)
Kenneth Lickliter	CBFO NTP
Mark Doherty	CBFO NTP
Steve Holmes	NMED
Ricardo Maestas	NMED
Coleman Smith	NMED
Connie Walker	NMED Contractor
Bob Blyth	DOE Idaho (DOE-ID)
Gregory Hayward	DOE-ID
Pete Johansen	Idaho Department of Environmental Quality (IDEQ)
Bruce LaRue	IDEQ

4.0 AUDIT PARTICIPANTS

The individuals at the INL site and AMWTP EDF who were contacted during the audit are identified in Attachment 1. A pre-audit meeting was held at the EDF, Building 259, Room 116, in Idaho Falls, Idaho, on October 1, 2013. Daily meetings were held with AMWTP management and staff to discuss the previous day's issues and deficiencies. The audit was concluded with a post-audit meeting held at the EDF, Building 259, Room 116, in Idaho Falls, Idaho, on October 3, 2013.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

This audit was performed to assess the ability of the AMWTP to characterize CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste to the requirements specified in the CBFO QAPD and the HWFP WAP. The WAP-related characterization methods assessed were AK, HSG S&A, SS&A, RTR, and VE. Other WAP-related activities evaluated were project-level data V&V, data quality objective (DQO) reconciliation, the preparation of waste stream profile forms (WSPFs), WWIS/WDS data entry, training and qualification, nonconformances, and records.

The audit team concluded that the applicable AMWTP TRU waste characterization activities, as described in the associated AMWTP implementing procedures, are satisfactory in meeting WAP requirements. Attachment 2 is a list of personnel contacted during the audit by subject area. Attachment 3 contains the objective evidence compiled during the audit (provided in boxes). Attachment 4 is the table of audited documents. Attachment 5 is a list of processes and equipment evaluated during the audit. Attachment 6 is the procedure revision matrix. Details of audit activities are described below.

5.2 General Activities

5.2.1 Results of Previous Audits

The results of CBFO Recertification Audit A-13-01 of the AMWTP were examined. No conditions adverse to quality (CAQ) requiring the issuance of a corrective action report (CAR) were issued as a result of the referenced audit.

5.2.2 Changes in Programs or Operations

HSG S&A and SS&A activities are no longer required per modification of the HWFP dated March 13, 2013; therefore, the following AMWTP procedures have been deactivated:

- MP-TRUW-8.17, *Co-Located Core Sampling Control Charts*
- MP-TRUW-8.25, *Random Selection of Containers for Headspace Gas and Solids Sampling and Analysis*
- MP-TRUW-8.34, *WIPP Sample Transfers*
- INST-OI-16, *Drum Coring Operations*
- INST-OI-43, *HGAS Sampling and Analysis Operations*
- INST-OI-73, *Manual Drum Coring Operations*
- INST-OI-75, *Container-in-Container Sampling*

NOTE: Since HSG S&A and SS&A activities had been performed since the previous recertification audit (A-13-01, conducted October 2012), the audit team utilized revisions of the above-mentioned procedures that were current at the time work was performed (prior to March 13, 2013).

Furthermore, AMWTP procedure INST-OI-81, *Real-Time Radiography Operations (For WIPP Certification of Boxes)*, has been deactivated and its processes/requirements have been merged into AMWTP procedure INST-OI-12, Rev. 52, *Real-Time Radiography Examinations (Certification Scans)*.

5.2.3 New Programs or Activities Being Implemented

No new programs or new activities have been implemented since the previous audit.

5.2.4 Changes in Key Personnel

The following personnel changes have occurred since the previous audit:

- President and Project Manager changed from Dave Sandlin to Danny Nickols
- TRU Program Manager changed from Sue Peterman to George Byram
- Training Manager changed from Mike Parrish to Todd Goldberg

No evidence was observed suggesting that the changes in key personnel had a negative impact on the program.

5.3 WAP-related Quality Assurance Activities

WAP-related QA program elements were evaluated using WAP C6-1 and C6-3 (May 8, 2012 version) checklists, with the technical activities defined in the remaining C6 checklists, as discussed in section 2.0. Each WAP-related QA element evaluated is discussed in detail in the following sections. The methods used to select objective evidence are discussed, the objective evidence used to assess compliance with the WAP and CBFO QAPD is cited briefly, and the results of the evaluation are provided. The WAP-related QA elements were evaluated by the audit team as outlined below.

5.3.1 Personnel Qualification and Training

The audit team verified that the AMWTP program addresses the requirements of CBFO QAPD Section 1.2, Personnel Qualification and Training, as well as WAP-related requirements from Table C6-1. The following implementing procedures were reviewed to determine the degree to which they adequately address upper-tier requirements: MP-RTQP-14.4, Rev. 21, *Personnel Qualification and Certification*; MP-RTQP-14.6, Rev. 9, *Job Analysis*; MP-RTQP-14.16, Rev. 8, *Training Program Evaluation*; MP-RTQP-14.19, Rev. 8, *Training Records Administration*; MP-Q&SI-5.8, Rev. 8, *Qualifying Supply Chain Inspectors, Auditors, Lead Auditors, and Technical Specialists*; and LST-RTQP-03-IM, Rev. 1, *WIPP Training Requirements Implementation Matrix*. The results of the review indicated that the procedures adequately address upper-tier requirements.

The audit team conducted interviews with responsible personnel in the AMWTP Training Department. Personnel training records associated with VE, RTR, HSG S&A, SS&A, AK, and site project management were examined to verify implementation of associated requirements and to verify that personnel performing characterization activities were appropriately trained and qualified.

The records reviewed provided objective evidence of AMWTP training program implementation. The audit team evaluated AMWTP qualification/requalification packages (Qualification Cards) and related individual training files for the various AMWTP positions; job analysis documentation; AMWTP Employee Training History (from the AMWTP training database [TRAIN system]); VE Expert (VEE) appointment memoranda; AK Expert (AKE) training for revised AK summaries; RTR Operator test drum (capability demonstrations); eye examination forms; and management assessment reports of the AMWTP training program.

No WAP-related deficiencies regarding personnel qualification and training were identified. The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for personnel qualification and training are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.3.2 Nonconformances

The audit team verified that the AMWTP program complies with the requirements of CBFO QAPD Section 1.3, Quality Improvement, as well as WAP-related requirements from Table C6-1. The audit team conducted interviews with representatives of the AMWTP QA program. The following implementing procedures were reviewed to determine the degree to which the procedures adequately address upper-tier requirements: MP-Q&SI-5.1, Rev. 9, *Investigation and Root Cause Analysis*; MP-Q&SI-5.3, Rev. 13, *Corrective Action*; and MP-Q&SI-5.4, Rev. 21, *Identification of Nonconforming Conditions*. The results of the review indicated that they adequately address upper-tier requirements.

Randomly selected nonconformance reports (NCRs) were evaluated to ensure that CAQs were appropriately identified, documented, dispositioned, investigated, and that root cause analysis was performed where mandated, resolved, and tracked through closure. The selected NCRs were reviewed, including verifications, to ensure that the AMWTP was appropriately documenting and reporting WAP-related nonconformances (identified at the site project management level) to CBFO, as required. The review indicated the AMWTP is documenting and reporting WAP-related nonconformances as required.

No WAP-related deficiencies regarding nonconformances were identified. The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for quality improvement are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.3.3 Records

The audit team verified that the AMWTP program complies with the requirements of CBFO QAPD Section 1.5, Records, as well as WAP-related requirements from Table C6-1. The audit team evaluated the adequacy of AMWTP procedure MP-DOCS-18.2, Rev. 17, *Records Management*, with respect to the requirements of the CBFO QAPD and

determined that the procedure contains adequate flow-down of upper-tier requirements. The results of the review indicated that it adequately addresses upper-tier requirements.

The audit team interviewed records management personnel and observed activities in the records center to determine if AMWTP records storage methods and records practices were compliant with procedural and HWFP WAP requirements. Activities evaluated by the audit team included custodian training, records receipt, verification, validation, submittal, and records maintenance.

No WAP-related deficiencies regarding records were identified. The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for records are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4 Technical Activities

Each technical area evaluated is discussed in detail in the following sections. The methods used to select objective evidence are discussed, the objective evidence used to assess compliance with the HWFP is cited briefly, and the results of the evaluation are provided.

5.4.1 Table C6-1, WAP Checklist (May 8, 2012)

As discussed in section 2.0, overall WAP activities were evaluated using WAP checklist C6-1, dated May 8, 2012.

The audit was performed to assess the AMWTP's ability to manage and perform TRU waste characterization and certification activities for CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste. The C6-1 WAP checklist addresses general program requirements from an overall management perspective. The general requirements checklist addresses both technical requirements and specific WAP-related QA programmatic requirements that, when collectively implemented, ensure effective overall management of TRU waste characterization and certification activities. Requirements are integrated into controlled documents to ensure the waste characterization strategy, as defined in the WAP, is accomplished and documented in accordance with controlled processes and procedures.

Technical activities evaluated, including both characterization and certification activities, consisted of data-generation and project-level data V&V, AK, RTR, VE, SS&A, HSG S&A (including Performance Demonstration Program [PDP] participation), and preparation of WSPFs for CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste. Objective evidence was selected and reviewed to evaluate the implementation of the associated characterization activities. BDRs, sampling records, and personnel training documentation were included in the evaluation. The audit included observation of actual waste characterization activities. Each characterization process involves:

- Collecting raw data
- Collecting quality assurance/quality control 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 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 the objective evidence reviewed are described in the following sections.

During the audit, the AMWTP demonstrated compliance with the waste characterization requirements of the HWFP WAP through documentation and by performing characterization activities.

Objective evidence was reviewed to verify that project-level activities were adequately performed to support waste characterization. The audit team reviewed AMWTP procedures MP-TRUW-8.14, Rev. 15, *Preparation of Waste Stream Profile Forms*; MP-TRUW-8.8, Rev. 35, *Level I Data Validation*; MP-TRUW-8.9, Rev. 26, *Level II Data Validation*; and MP-TRUW-8.25, Rev. 18, *Random Selection of Containers for Headspace Gas and Solids Sampling and Analysis*, relative to project-level and random selection activities, to determine the degree to which the procedures adequately address HWFP WAP requirements. The results of the review indicated that they adequately address HWFP WAP requirements.

BDRs were evaluated based on project-level requirements for SS&A, HSG S&A, RTR, and VE for CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste. The project-level data V&V process was evaluated by reviewing the following BDRs:

Solids Sampling & Analysis (SS&A)

SSC12-00006 SSG12-00007

Headspace Gas Sampling & Analysis (HSG S&A)

HS112-00015 HS113-00002

Real-time Radiography (RTR)

RTR12-00137 RTR13-00002 RTR13-00023 RTR13-00053
RTR13-00187

Visual Examination (VE)

VEB12-01000 VEB13-00001 VEB13-00444 VEB13-00475
VNC13-00084 VNC13-00093

The audit team evaluated the random selection process for HSG S&A. Random selection documentation for HSG samples and their associated BDRs were evaluated for the supercompacted SCG S5000 debris waste stream BN510.1, for Boxline Lot 3. The evaluation determined that the random selection process for HSG S&A was performed in accordance with applicable procedures.

Procedures and objective evidence were reviewed to ensure that the AMWTP adequately performs data reconciliation and preparation of WSPFs. A review was performed on the CH SCG S3000 homogeneous solids and CH SCG S5000 debris WSPF/Characterization Information Summary for waste streams BNINW218, building 374 sludge; BN510.1/BN510.2, supercompacted debris waste; and BN222, solidified plutonium recovery incinerator waste. The results of the review indicated that the AMWTP is completing WSPFs in accordance with applicable requirements.

No WAP-related deficiencies regarding project-level activities or preparation of WSPFs were identified during the audit. Overall, the procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the requirements for project-level V&V and WSPF preparation are adequately established for compliance with HWFP WAP requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

WWIS/WDS

As discussed in section 2.0, WWIS/WDS activities were evaluated using WAP checklist C6-1, dated May 8, 2012.

The audit team conducted interviews with responsible personnel and reviewed AMWTP implementing procedure MP-TRUW-8.5, Rev. 29, *TRU Waste Certification*, relative to WWIS/WDS data entry, to determine the degree to which the procedure adequately addresses HWFP WAP WWIS/WDS requirements. The results of the review indicate that the procedure adequately addresses HWFP WAP requirements.

The audit team reviewed documentation of WDS access requests and requests for removal from WDS access for AMWTP waste certification officials (WCOs). The audit team determined that appropriate personnel have been granted access to WDS and are adequately trained in WWIS/WDS operations. Access control to WDS applications is established using AMWTP user identification and passwords for network/server access and WDS assigned access user names and passwords.

The audit team observed data entry and uploading to the WDS Offsite Shipping Module (OSM) and reviewed selected documentation packages to provide objective evidence of data entry into the WDS certification module and the OSM. The audit team determined that WCOs properly enter data directly into WDS characterization and certification modules. A sample of documentation packages was reviewed to provide objective evidence of data entry into AMWTP Waste Tracking System (WTS) modules and extraction to the WWIS/WDS certification modules. Data entry is properly performed to complete characterization data and submit it for certification.

No WAP-related deficiencies regarding WWIS/WDS were identified during the audit. The procedure reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for WWIS/WDS are adequately established for compliance with HWFP WAP WWIS/WDS requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.2 Table C6-2, Solids and Soils/Gravel Sampling Checklist (May 8, 2012)

As discussed in section 2.0, solids sampling activities were evaluated using WAP checklist C6-2, dated May 8, 2012.

The audit team evaluated the AMWTP's ability to characterize CH SCG S3000 homogeneous solids waste and CH SCG S4000 soils/gravel waste using the solids sampling methods of coring and obtaining representative grab samples.

The AMWTP performs its own SCG S3000 solids sampling as well as coring activities of SCG S3000 solids and SCG S4000 soils/gravel wastes from other generator sites, but the SCG S4000 waste is not certified to ship for disposal at the WIPP. The AMWTP retains responsibility for the accuracy and completeness of SCG S3000 BDRs by performing project-level data V&V. Solids analysis is performed by the INL and is audited separately.

The audit team evaluated the following AMWTP implementing procedures: MP-TRUW-8.17, Rev. 7, *Co-Located Core Sampling Control Charts*; INST-OI-16, Rev. 41, *Drum Coring Operations*; MP-TRUW-8.34, Rev. 8, *WIPP Sample Transfers*; INST-OI-73, Rev. 13, *Manual Drum Coring Operations*; INST-OI-75, Rev. 11, *Container-in-Container Sampling*; MP-TRUW-8.8, Rev. 35, *Level I Data Validation*; and LST-RTQP-03-IM, Rev. 1, *WIPP Training Requirements Implementation Matrix*, relative to solids and soils/gravel sampling activities, to determine the degree to which procedures adequately address upper-tier requirements. The results of the review indicate that the procedures adequately address HWFP WAP requirements.

AMWTP solids sampling activities were evaluated by examining two BDRs, SSC12-00006 and SSG12-00007. The audit team toured building WMF-634 Coring Facility and examined the remaining coring tools, grab sampling tools, storage of sampling equipment and samples, and the AMWTP spare parts inventory. The audit team reviewed training records for solids sampling operators to verify that the required training and qualifications were current for the last sampling performed. Equipment blank records were audited, sample tags were checked, and custody seals were examined. Although the results of solids sampling activities were evaluated during this audit, these activities are no longer required per modification of the HWFP dated March 13, 2013.

No WAP-related deficiencies regarding solids and soils/gravel sampling were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing CH SCG S3000 homogeneous solids waste and CH SCG S4000 soils/gravel waste using the solids and soils/gravel sampling process are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective at the time of the last sampling events.

5.4.3 Table C6-3, Acceptable Knowledge Checklist (May 8, 2012)

As discussed in section 2.0, AK activities were evaluated using WAP checklist C6-3, dated May 8, 2012.

The audit team evaluated the AK process for characterizing SCG S3000 homogeneous solids and SCG S5000 debris wastes. For the evaluation, the audit team used the WAP C6 checklists, primarily checklist C6-3, for evaluating compliance with the HWFP. Four waste streams were examined during the audit, including the S5000 mixed waste debris streams BN510.1 and BN510.2 (RPT-TRUW-83, AK Summary for Supercompacted Debris Waste), along with two S3000 mixed waste solids streams generated at the Rocky Flats Plant designated as BN222 (RPT-TRUW-77, AK Summary for Solidified Plutonium Recovery Incinerator Waste) and BNINW218 (RPT-TRUW-15, AK Summary for Building 374 Sludge).

The audit team evaluated the following AMWTP implementing procedures: MP-TRUW-8.1, Rev. 24, *Certification Plan for INL Transuranic Waste*; MP-TRUW-8.2, Rev. 17, *Quality Assurance Project Plan*; MP-TRUW-8.11, Rev. 25, *Data Reconciliation*; MP-TRUW-8.13, Rev. 25, *Collection, Review, and Management of Acceptable Knowledge Documentation*; and MP-TRUW-8.14, Rev. 15, *Preparation of Waste Stream Profile Forms*, relative to AK activities, to determine the degree to which procedures adequately address upper-tier requirements. The results of the review indicated that they adequately address HWFP WAP requirements.

Numerous documents from the AK record that demonstrate adherence to the applicable requirements were reviewed and compiled as objective evidence, including relevant AK summary reports, WSPFs and attachments, AK source document summaries, and BDRs from characterization activities. Random container selection memoranda for HSG and solids sampling lots, as appropriate, were reviewed along with corresponding HSG and Solids Analysis Summary Reports and data reconciliation packages that compared the results of characterization activities with the AK record. In addition, the audit team examined AK discrepancy resolution documentation for discrepancies in the AK record and the resolution of discrepancies identified during characterization. The audit team also reviewed NCRs dealing with the identification and disposition of prohibited items.

In addition to the respective AK summary reports for the above mentioned streams, WAP-required and/or supporting information from AK upper-tier documents was also reviewed by the audit team. These upper-tier documents include RPT-TRUW-06, *AMWTP Baseline AK for Newly Generated Waste*; RPT-TRUW-56, *AK Document for INL Stored TRU Waste-Rocky Flats Plant*; RPT-TRUW-12, *AMWTP Waste Stream Designations*; RPT-TRUW-05, *Waste Matrix Code Reference Manual*; and RPT-TRUW-07, *Determination of Radioisotopic Content in TRU Waste Based on AK*. The audit team examined WAP-compliant AK accuracy reports, and the most recent internal surveillances related to the AK record. Requisite training records were reviewed for AKEs and site project managers (SPMs) and were determined to be compliant with applicable training requirements.

A total of six drums were tracked for the WAP-required traceability exercise, including three drums from the BN510.1 waste stream, one of which was part of the latest HSG S&A lot, one drum from BN510.2, and one drum each from waste streams BN222 and BNINW218 that were both part of the solids sampling and analysis lot.

In addition to reviewing the relevant HSG and SS&A BDRs and associated data, the relevant VE and RTR characterization BDRs were examined. The audit team also compiled traceability screenshot data from active container databases, along with container input forms, where applicable.

No WAP-related deficiencies regarding AK were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste using the AK process are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.4 Table C6-4, Headspace Gas Checklist (May 8, 2012)

As discussed in section 2.0, HSG sampling activities were evaluated using WAP checklist C6-4, dated May 8, 2012.

The audit team reviewed AMWTP implementing procedures MP-TRUW-8.8, Rev. 35, *Level I Data Validation*; MP-TRUW-8.25, Rev. 18, *Random Selection of Containers for Headspace Gas and Solids Sampling and Analysis*; INST-OI-43, Rev. 22, *HGAS Sampling and Analysis Operations*; INST-OI-45, Rev. 18, *Drum Filter Installation*; and INST-OI-50, Rev. 16, *WMF-615 Filter Insertion Operations*, relative to HSG sampling activities, to determine the degree to which procedures adequately address upper-tier requirements. The results of the review indicated that they adequately address HWFP WAP requirements.

The audit team evaluated the results of AMWTP operations for HSG S&A using an automated on-line sampling and analytical system with gas chromatography/mass spectrometry and gas chromatography/thermal conductivity detector. HSG S&A operations were evaluated by examining the equipment, conducting personnel interviews, and reviewing HSG S&A BDRs HS112-00015 and HS113-00002. The results of the review indicated that the BDRs were complete and compliant with applicable requirements. Cancellation of the latest PDP, Cycle 27A, was verified. The determination of method detection limits, laboratory logbooks, standard gas certifications, accuracy studies, and the current WIPP-approved equipment were audited and determined to be compliant with requirements. Measuring and test equipment was audited and determined to be acceptable. Training and qualification of sampling individuals was confirmed to be compliant with the AMWTP training program. Random sampling documentation was provided and evaluated to confirm compliance with the requirements for the random selection process. Confirmation of sample size and containers selected for waste stream BN510.1, for Boxline Lot 3, were verified to be compliant.

Although HSG S&A activities were evaluated during this audit, these activities are no longer required per modification of the HWFP dated March 13, 2013. The on-line sampling and analytical equipment have been rendered out-of-service and appropriately tagged to preclude further use.

No WAP-related deficiencies regarding HSG S&A were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste using the HSG S&A process are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective at the time of the last sampling events.

5.4.5 Table C6-3, Radiography Checklist (March 13, 2013)

As discussed in section 2.0, RTR activities were evaluated using WAP checklist C6-3, dated March 13, 2013.

The audit team evaluated the adequacy, implementation, and effectiveness of AMWTP characterization and certification of CH SCG S3000 homogeneous solids waste and SCG S5000 debris waste using the RTR characterization process.

The audit team reviewed AMWTP procedures MP-TRUW-8.8, Rev. 35, *Level I Data Validation*; INST-OI-12, Rev. 52, *Real-Time Radiography Examinations (Certification Scans)*; and INST-OI-81, Rev. 10, *Real-Time Radiography Operations (for WIPP Certification of Boxes)*, relative to RTR activities, to determine the degree to which the procedures adequately address upper-tier requirements. The results of the review indicated that they adequately address HWFP WAP requirements.

The audit team evaluated RTR operator required test and training drum audio/video media for four RTR operators. Records of RTR operator training and qualification, including test and training drum documentation, were examined. The audit team verified that RTR operators were appropriately qualified as required for compliance with training requirements.

The audit team evaluated RTR operations in building WMF-634. RTR scan operations for vent verification of container number 10025563 was observed using RTR Unit 101. The audit team also examined RTR operational logbook entries on the electronic login system (eSOMS) for RTR Units 101 and 106 to verify entries were correct and reviewed by the facility shift supervisor, as required. RTR Unit 106 was out of service at the time of the audit. Both units are located in building WMF-634 and are appropriately equipped with the required components.

AMWTP procedure INST-OI-81, *Real-Time Radiography Operations (For WIPP Certification of Boxes)*, has been deactivated, but its process/requirements have been merged into AMWTP procedure INST-OI-12, Revision 52, *Real-Time Radiography Examinations (Certification Scans)*. There were no certifications of boxes since the previous audit (A-13-01, conducted October 2012) or during this audit.

The audit team examined the following RTR BDRs:

RTR12-00139	RTR12-00170	RTR12-00187	RTR13-00002
RTR13-00004	RTR13-00105	RTR13-00121	RTR13-00138
RTR13-00181			

No WAP-related deficiencies regarding RTR were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste using the RTR process are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.6 Table C6-4, Visual Examination Checklist (March 13, 2013)

As discussed in section 2.0, VE activities were evaluated using WAP checklist C6-4, dated March 13, 2013.

The audit team evaluated the adequacy, implementation, and effectiveness of the AMWTP VE characterization process for SCG S5000 debris waste. The certified VE process for characterizing SCG S3000 homogeneous solids waste, implemented for the South Boxline in the waste treatment facility, building WMF-676, is no longer being used. Accordingly, procedure INST-FOI-022, *Visual Examination of S3000 Waste in the Facility*, has been deactivated.

The audit team reviewed procedures MP-TRUW-8.8, Rev. 35, *Level I Data Validation*; INST-OI-34, Rev. 28, *Non-Facility Visual Examination Operations*; INST-FOI-17, Rev. 27, *Facility Visual Examination Operations*; INST-FOI-20, Rev. 39, *Supercompactor and Post-Compaction Operations*; and LST-RTQP-03-IM, Rev. 1, *WIPP Training Requirements Implementation Matrix*, relative to VE activities, to determine the degree to which procedures adequately address upper-tier requirements. The results of the review indicate that they adequately address HWFP WAP requirements.

The AMWTP uses the two-operator VE characterization method in which VE is performed by two qualified operators who examine the waste and place it into containers.

The audit team toured the North and South Boxline in building WMF-676 and the VE-Tent in building WMF-628. Interviews with VE operators were conducted, as well as a review of VE logbook entries. VE was not being performed during the audit due to a recent shutdown associated with an unexpected event in the boxline; however, this condition did not preclude the audit team from verifying the VE characterization process.

The audit team examined the following VE BDRs:

VEB12-01150	VEB12-01157	VEB12-01172	VEB13-00390
VEB13-00424	VEB13-00476	VEB13-00493	

The audit team examined training records for VE operators, Independent Technical Reviewers, and VEEs, and confirmed the appointment of AMWTP VEEs. The audit team verified that VE operators, Independent Technical Reviewers, and VEEs were appropriately trained and qualified as required.

No WAP-related deficiencies regarding VE were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing SCG S5000 debris waste using the VE process is adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

6.0 CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify CAQs, as defined below, and document such conditions 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 Quality Assurance (QA) program.

No WAP-related CAQs necessitating a CAR were identified during the audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. Audit team members, the audit team leader (ATL), and the CBFO QA representative 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 and the CBFO QA representative, determines if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit. Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL and the CBFO QA representative, 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 CBFO QA representative categorizes the condition as corrected during audit (CDA) according to the following definition:

CDAs – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence. Correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to

correct a procedure (isolated), one or two forms not signed or not dated (isolated), and one or two individuals that have not completed a reading assignment.

No WAP-related CAQs were corrected during the audit.

6.3 Observations

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

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

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

No WAP-related observations were identified during the audit.

6.4 Recommendations

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

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

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

No WAP-related recommendations were identified during the audit.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Personnel Contacted During the Audit by Subject Area
- Attachment 3: Objective Evidence Compiled During the Audit (provided in boxes)
- Attachment 4: Table of Audited Documents
- Attachment 5: List of Processes and Equipment Evaluated During the Audit
- Attachment 6: Procedure Revision Matrix

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Jade Anderson	ITG Software Development Manager	X	X	
Kevin Bake	ITG Systems Engineer	X	X	
Scott Bjorn	ITG Operations Manager		X	
Delisa Blattner	ITG Document Technical Publications Specialist		X	
Bob Blyth	DOE-ID SQA Observer	X	X	X
Corey Boland	ITG Systems Engineer		X	
Mike Brugger	ITG VE Expert		X	
Dave Butler	ITG Training Instructional Analyst Developer	X	X	X
George Byram	ITG TRU Programs Manager	X	X	X
Steve Carpenter	ITG AK Expert		X	
Norma Castaneda	CBFO NTP Observer	X	X	X
Chuck Conway	ITG Acting Plant Manager	X		
Rick Dale	ITG Communications Manager			X
Doug Dineen	ITG Cognizant System Engineer		X	X
Mark Doherty	CBFO NTP Observer	X	X	X
Jake Fellows	ITG Facility Ops. Technician		X	
Shannon Florez	ITG Packaging & Shipping Manager		X	
Denny Gasper	ITG VE Expert	X	X	X
Danny Green	ITG RTR Operator		X	
Ronald Grise	ITG VE Expert	X	X	X
David Haar	ITG Waste Programs Manager	X	X	X

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Jeremy Hampton	ITG Production Planning Manager		X	
Rod Harrison	ITG Procurement Manager		X	
Gregory Hayward	DOE-ID QA Observer	X	X	X
Hilda Hernandez	ITG Tool Crib Custodian		X	
Steve Holmes	NMED Observer	X	X	X
Tally Jenkins	DOE-ID, AMWTP	X		X
Pete Johansen	Idaho DEQ Observer	X	X	
Nancy Kirk	ITG AK Expert		X	X
Bruce LaRue	Idaho DEQ Observer	X	X	X
Denise Lee	ITG RTR ITR	X	X	
Kenneth Lickliter	CBFO NTP Observer	X	X	X
Ricardo Maestas	NMED Observer	X	X	X
Stormy McCurdy	ITG WCO		X	
Dennis Miehl	CBFO QA Observer	X	X	X
Paul Minor	ITG WCO		X	
Randy Morris	ITG AK Expert		X	
Angie Morse	ITG QA Manager	X	X	X
Mel Murdock	ITG Packaging & Shipping Supervisor		X	
Danny Nichols	ITG President & Project Manager	X	X	X
Seth Oldham	ITG HSG Operator		X	
Trent Olaveson	ITG PAIT/ICS			X
Jerry Patterson	ITG PAIT/ICS		X	X
Dave Preston	ITG TRU Programs SME		X	
Ben Roberts	DOE-ID, AMWTP Operations Activity Manager	X		

PERSONNEL CONTACTED DURING THE AUDIT				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Cesar Rojas	ITG HSG Chemist	X	X	
Lyle Ryman	ITG QA Specialist	X	X	
Eric Schweinsberg	ITG TRU Programs SPM	X	X	X
Michelle Sharp	ITG QA Specialist	X	X	X
Brittany Skaar	ITG Production Planner		X	
Coleman Smith	NMED Observer	X	X	X
Mark Sorenson	ITG RTR ITR		X	X
Matthew Storms	ITG WCO		X	
Steve Tallman	ITG RTR SME	X	X	
Gina Tedford	ITG SPM Audit Lead	X	X	X
Alice Terramorse	ITG Procurement Specialist		X	X
Matt Thompson	WTS Coordinator	X	X	
Robert (Bob) Toro	DOE-HQ (EM-43) Quality Assurance Observer	X	X	X
Tim Venneman	ITG AKE		X	
Connie Walker	NMED Observer	X	X	
Jerry Wells	DOE-ID, AMWTP Deputy Operations Activity Manager	X		X

PERSONNEL CONTACTED DURING THE AUDIT BY SUBJECT AREA

Personnel Qualification and Training	Dave Butler
Control of Nonconforming Items	Angie Morse Lyle Ryman
Records	Delisa Blattner Mike Brugger Eric Schweinsberg
WIPP Waste Information System (WWIS Data Entry)	Matthew Storms Stormy McCurdy
Waste Certification/Project Level Data V&V	George Byram Lyle Ryman Gina Tedford
Solids Sampling and Analysis	Dave Preston
Acceptable Knowledge	Steve Carpenter Tim Venneman Nancy Kirk Randy Morris Gina Tedford
Headspace Gas Sampling and Analysis	Cesar Rojas Seth Oldham
Real-time Radiography	Denise Lee Danny Green
Visual Examination	Denny Gasper Ron Grise