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Department of Energy
Carlsbad Field Office
P. O. Box 3090
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MAR 16 2012



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

Subject: Transmittal of the Recertification Final Audit Report for the Advanced Mixed Waste Treatment Project, Audit A-12-03

Dear Mr. Kieling:

This letter transmits the final audit report for Carlsbad Field Office (CBFO) Audit A-12-03 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. The enclosed report contains the results of the recertification audit conducted November 1-3, 2011.

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. Randy Unger, Director of the Office of Quality Assurance, at (575) 234-7065.

Sincerely,

Jose R. Franco
Manager, Carlsbad Field Office

Enclosure



Mr. John Kieling

-2-

MAR 16 2012

cc: w/Report Narrative

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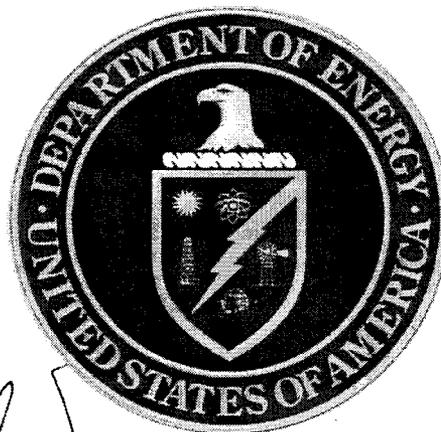
WIPP Operating Record

CTAC QA File

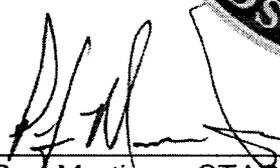
CBFO M&RC

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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-12-03
November 1 - 3, 2011

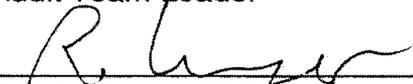


Prepared by:


Pori Martinez, CTAC
Audit Team Leader

Date: 2/28/2012

Approved by:


Randy Unger, CBFO
Quality Assurance Director

Date: 15 Mar 12

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Recertification Audit A-12-03 was conducted to evaluate the adequacy, implementation, and effectiveness of Advanced Mixed Waste Treatment Project (AMWTP) transuranic (TRU) waste characterization activities performed at the Idaho National Laboratory (INL) relative to the requirements detailed in the *CBFO Quality Assurance Program Document (QAPD)*, the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) Waste Analysis Plan (WAP), and the *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*.

The audit was performed at the INL and AMWTP facilities in Idaho Falls, Idaho, November 1 through 3, 2011. The audit team concluded that overall, the AMWTP technical and WAP-related quality assurance (QA) elements, as applicable to the audited activities, were adequate in addressing upper-tier requirements. The audit team concluded that overall, the defined AMWTP QA and technical programs for contact-handled (CH) Summary Category Group (SCG) S3000 homogeneous solids and CH SCG S5000 debris waste were being satisfactorily implemented in accordance with the QAPD, the HWFP WAP, and the WAC, and were effective in achieving the desired results. The audit team also evaluated a new visual examination process for characterizing S3000 homogeneous solids in the waste treatment facility.

No conditions adverse to quality were identified during the audit. One WAP-related Observation was identified during the audit, and one WAP-related Recommendation was offered for Management consideration as described in section 7.

2.0 SCOPE AND PURPOSE

2.1 Scope

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

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

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

The following QA elements were audited, as required by the HWFP Attachment C6-1 Checklist:

- Personnel Qualification and Training
- Nonconformances
- Records

The following CBFO waste characterization technical elements were audited, in accordance with the CBFO QAPD, the HWFP WAP, and the WAC, 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
- *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, DOE/WIPP-02-3122

Programmatic and technical checklists were developed from 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 quality assurance and technical implementing procedures

2.2 Purpose

Audit A-12-03 was conducted to assess the level of AMWTP compliance to the CBFO QAPD, the HWFP WAP, and the WAC requirements for waste characterization activities related to the certification of CH SCG S3000 homogeneous solids and CH SCG S5000 debris waste.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Courtland Fesmire	CBFO Management QA Representative
Porf Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Jack Walsh	Auditor, CTAC
Katie Martin	Auditor, CTAC

Cindi Castillo	Auditor, CTAC
Norm Frank	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Earl Bradford	Auditor, CTAC
Margie Martinez	Auditor, CTAC
Priscilla Martinez	Auditor, CTAC
Paul Gomez	Technical Specialist, CTAC
Dick Blauvelt	Technical Specialist, CTAC
BJ Verret	Technical Specialist, CTAC
Rhett Bradford	Technical Specialist, CTAC

OBSERVERS

Steve Holmes	New Mexico Environment Department (NMED)
Ricardo Maestas	NMED
Connie Walker	NMED Contractor
Norma Castaneda	CBFO Office of the National TRU Program
Thomas Morgan	CBFO Office of the National TRU Program
Kenneth Lickliter	CBFO Office of the National TRU Program
Dorothy Gill	U.S. Environmental Protection Agency (EPA)
Bruce LaRue	Idaho Department of Environmental Quality
Pete Johansen	Idaho Department of Environmental Quality

4.0 AUDIT PARTICIPANTS

The individuals at the INL and AMWTP facilities who were contacted during the audit are identified in Attachment 1. A pre-audit meeting was held in the INL Engineering Research Office Building, main conference room, in Idaho Falls, Idaho, on November 1, 2011. Daily meetings were held with AMWTP Management and staff to discuss the previous day's issues and potential deficiencies. The audit was concluded with a post-audit meeting held in Building EDF-259, conference room WMF-1613, of the AMWTP Energy Drive Facilities in Idaho Falls, Idaho, on November 3, 2011.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

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

The audit team concluded that the applicable AMWTP TRU waste characterization activities, as described in the associated AMWTP implementing procedures, are

satisfactory in meeting upper-tier requirements. Attachment 2 contains a list of personnel contacted during the audit by area. Attachment 3 contains the objective evidence compiled during the audit. 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

5.2.1 Results of Previous Audits

The results of CBFO recertification Audit A-10-24 of AMWTP were examined. No conditions adverse to quality (CAQ) were issued as a result of the referenced audit.

5.2.2 Changes in Programs or Operations

A contract transition occurred for the management and operations (M&O) contractor from Bechtel, BWXT Idaho (BBWI) to the Idaho Treatment Group (ITG), a performance based contract, on October 1, 2011. ITG also acquired the solids analytical lab (SAL) contract. The SAL is evaluated by the CBFO during the INL Labs certification audit and is not in the scope of this audit.

5.2.3 New Programs or Activities Being Implemented

A new VE process for characterizing CH SCG S3000 homogeneous solids waste has been implemented for the south boxline in the waste treatment facility, building WMF-676. The previous process for solids treatment was conducted in the treatment tent in building WMF-628. Procedure INST-FOI-22, *Visual Examination of S3000 Waste in the Facility*, is the new operating procedure used for this process.

5.2.4 Changes in Key Personnel

Due to the contract change, the following key personnel changes have occurred:

- President/General Manager changed from Jeff Mousseau to Richard Raaz, President and Project Manager
- Waste Program Manager changed from Enrique Torres to David Haar
- TRU Programs Manager changed from Enrique Torres to Sue Peterman
- QA Manger changed from Tom Fallon to Elvin Dumas
- Training Manager changed from Ralph Hartline to Mike Parrish

5.3 HWFP WAP-Related Quality Assurance Activities

The audit team evaluated the QA elements for personnel qualification and training, records, and nonconformances to applicable upper-tier requirements. The methods used to select objective evidence are discussed, the objective evidence used to assess compliance with the HWFP WAP is cited briefly (and in detail on the checklists), and the

results of the assessment are provided. The evaluation results for each area audited are described below.

5.3.1 Personnel Qualification and Training

The audit team conducted interviews with responsible personnel in the AMWTP Training Department and reviewed the following implementing procedures to determine the degree to which the procedures adequately address upper-tier requirements: MP-RTQP-14.4, Rev. 17, *Personnel Qualification and Certification*; MP-RTQP-14.6, Rev. 6, *Job Analysis*; MP-RTQP-14.16, Rev. 5, *Training Program Evaluation*; MP-RTQP-14.19, Rev. 5, *Training Records Administration*; and LST-RTQP-03-IM, Rev. 0, *WIPP Training Requirements Implementation Matrix*.

Personnel training records associated with VE, RTR, HSG, SS&A, AK, and site project management were examined to verify implementation of associated requirements and to verify that personnel performing characterization activities are appropriately qualified. The audit team examined qualification and requalification checklists/packages, RTR container demonstration forms, and required reading documentation. A random sampling of documentation for qualified VE operators who received waste stream training for AK RPT-TRUW-83, Revision 1, and AK RPT-TRUW-88, Revision 0, was reviewed. The waste stream training was verified and objective evidence demonstrated that these operators were trained or instructed in specific waste generating practices, typical packaging configurations, and waste material parameters, as required by the HWFP WAP. No concerns were identified during the audit.

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 conducted interviews with representatives of the AMWTP QA Program. AMWTP procedure MP-Q&SI-5.4, Rev. 20, *Identification of Nonconforming Conditions*, was reviewed to determine the degree to which the procedure adequately addresses upper-tier requirements. Randomly selected nonconformance reports (NCRs) were evaluated to ensure that nonconformances were appropriately documented, resolved, and tracked through closure. The selected NCRs were reviewed to ensure that AMWTP was appropriately documenting and reporting WAP-related nonconformances (identified at the site project management level) to CBFO as required. No concerns were identified during the audit.

The procedure reviewed and objective evidence assembled and evaluated during the audit concluded that the applicable requirements for control of nonconformances are adequately established for compliance with upper-tier requirements and are effectively implemented.

5.3.3 Records

The audit team evaluated the adequacy of AMWTP procedure MP-DOCS-18.2, Rev. 14, *Records Management*, with respect to the requirements of the HWFP WAP and determined that the procedure contains adequate flow-down of upper-tier requirements.

The audit team interviewed records management personnel and observed activities to determine if AMWTP record storage methods were in compliance with procedural requirements. Documents such as record coordinator designation and training, records transmittals, and records indexes were reviewed during the evaluation. The audit team observed records management activities at the records center. No concerns were identified during the audit.

The documents reviewed and evaluated during the audit provided evidence that the applicable requirements for records management are adequately established, satisfactorily implemented, and effective.

5.3.4 Transportation

The audit team conducted interviews with AMWTP waste certification officials (WCOs) and reviewed AMWTP implementing procedure MP-TRUW-8.12, Rev. 22, *Waste Receipt and Shipping Inspection*, relative to transportation requirements, to determine the degree to which the procedure adequately addresses HWFP Attachment C6-1 transportation requirements.

The audit team evaluated shipping documentation and verified that the generator/storage site accurately completed the EPA Hazardous Waste Manifest as required, including the container-specific information, and the shipment documentation was included within the shipment package. No concerns were identified during the audit.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for transportation are adequately established for compliance with HWFP Attachment C6-1 transportation requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.3.5 WWIS/WDS

The audit team conducted interviews with responsible personnel and reviewed AMWTP implementing procedure MP-TRUW-8.5, Rev. 25, *TRU Waste Certification*, relative to WWIS/WDS data entry, to determine the degree to which the procedure adequately addresses HWFP Attachment C6-1 WWIS/WDS requirements.

The audit team reviewed documentation of WWIS/WDS access requests and requests for removal from WWIS/WDS access for AMWTP WCO personnel. The audit team determined that appropriate personnel have been granted access to WWIS/WDS and

are adequately trained in WWIS/WDS operations. Access control to WWIS/WDS applications is established using AMWTP user identification and passwords for network/server access and WWIS/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 WWIS/WDS certification module and the OSM. The audit team determined that WCOs properly enter data directly into WWIS/WDS characterization and certification modules. Data entry is properly performed to complete characterization data and submit it for certification. No concerns were identified during the audit.

The procedures 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 Attachment C6-1 WWIS/WDS requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4 Technical Activities

Each technical area audited 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 assessment are provided.

5.4.1 Table C6-1, WAP Checklist

The audit was performed to assess 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 technical requirements and QA programmatic requirements that, when collectively implemented, ensure effective overall management of TRU waste characterization and certification activities. Requirements are integrated into controlled documents that will ensure the waste characterization strategy as defined in the WAP is accomplished and documented in accordance with controlled processes and procedures.

Technical activities evaluated, including 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 direct observation of actual waste characterization activities. Each characterization process involves:

- Collecting raw data
- Collecting quality assurance/quality control (QA/QC) samples or information
- Reducing the data to a useable format, including a standard report
- Review of the report by the data generation facility and the site project office
- Comparing the data against program DQOs
- Reporting the final waste characterization information to 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, AMWTP demonstrated compliance with the characterization requirements of the HWFP through documentation and by performing characterization activities.

Objective evidence was reviewed to ensure project-level activities were adequately performed to support waste characterization. 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 random selection requirements for HSG were evaluated, along with the associated BDRs. In addition, procedures and objective evidence were reviewed to ensure that AMWTP could adequately perform data reconciliation and properly prepare a WSPF. The audit team reviewed AMWTP procedures MP-TRUW-8.14, Rev. 12, *Preparation of Waste Stream Profile Forms*; MP-TRUW-8.8, Rev. 31, *Level I Data Validation*; and MP-TRUW-8.9, Rev. 24, *Level II Data Validation*.

Objective evidence was reviewed to determine the adequacy of the site project management V&V procedures. 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.

A review was performed on the CH SCG S5000 debris and CH SCG S3000 homogeneous solids WSPF/Characterization Information Summary (CIS) for BNINW216 First/Second Stage Sludge Solids Sampling Plan, Lot 21. The review included the random sample selection, with two addenda, for BNINW216 First/Second Stage Sludge Solids Sampling Plan, and BNINW216 First/Second Stage Sludge Solids Sampling Report with CIS. The random sample selection for the debris waste stream BN510.1 Boline lot 1 and lot 2 was provided for review. To aid in the review process the Site Project Manager (SPM) utilized AK documents for the waste reviewed, including AK summary reports for waste streams BNINW216, BNINW218, BN835, BN510, BN004, BN836, BN222, BN510.1, and BN600.

The project-level data V&V process was evaluated by reviewing the following BDRs:

Radiography (RTR)

RTR11-00086 RTR11-00149 RTR11-00158

Visual Examination (VE)

VEB11-00579 VEB11-00853 VEB11-00760

Solids

SSC11-00004 SSC11-00009 SSG11-00005 SSG11-00006
ALD11024V ALD11024S ALD11024N ALD11024M

Headspace Gas (HSG)

HS110-00018 HS111-00010 HS111-00012

No concerns were identified during the audit. The audit team verified that AMWTP is satisfactorily implementing the program requirements from an overall management perspective, including the project-level data V&V process to characterize and certify waste for disposal in accordance with HWFP requirements. Overall, project-level activities were determined to be adequate, satisfactorily implemented, and effective.

5.4.2 Table C6-2, Solids and Soils/Gravel Sampling Checklist

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 has the capability to sample both CH SCG S3000 homogeneous solids waste and CH SCG S4000 soils/gravel wastes. The audit team evaluated the following solids sampling procedures: MP-TRUW-8.17, Rev. 7, *Co-Located Core Sampling Control Charts*; INST-OI-16, Rev. 37, *Drum Coring Operations*; MP-TRUW-8.34, Rev. 6, *WIPP Sample Transfers*; INST-OI-73, Rev. 10, *Manual Drum Coring Operations*; INST-OI-75, Rev. 8, *Container-in-Container Sampling*; MP-TRUW-8.8, Rev. 31, *Level I Data Validation*; LST-RTQP-03-IM, Rev. 0, *WIPP Training Requirements Implementation Matrix*. The solids sampling procedures were found to be adequate in meeting HWFP requirements.

AMWTP solids sampling activities were evaluated by examining two BDRs: SSC11-00002 and SSG11-00006. Container-in-container sampling operations were observed during this audit. The audit team toured building WMF-634 Coring Facility and examined coring tools and storage of sampling equipment and samples. The audit team reviewed training records for solids sampling operators to verify that their required training and qualifications had been achieved and are current. Equipment blank records were audited, sample tags were checked, custody seals were examined, and control charts were verified.

The AMWTP performs its own SCG S3000 solids sampling and performs SCG S4000 soils/gravel waste sampling for other generator sites. The AMWTP retains responsibility

for the accuracy and completeness of SCG S3000 BDRs by performing project-level data V&V. Solids analysis was not evaluated as part of this audit. The AMWTP utilizes the services of the INL analytical laboratory for analysis of solids samples. The INL laboratory program is audited and approved by CBFO and is currently qualified and certified. No concerns were identified in this area during the audit.

Overall, solids and soils/gravel sampling activities were determined to be adequate in addressing the requirements of the WAP, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.3 Table C6-3, Acceptable Knowledge Checklist

The audit team evaluated the AK process for characterizing CH SCG S5000 debris and CH SCG S3000 homogeneous solids wastes. For the evaluation, the audit team used the WAP C6 checklists, primarily checklist C6-3, as a guide for demonstration of HWFP compliance and also examined compliance with the WIPP WAC. Three waste streams were examined during the audit including S5000 mixed waste debris stream BN510.1, the new supercompacted debris waste stream (RPT-TRUW-83, *Acceptable Knowledge Summary for Supercompacted Debris Waste (BN510.1)*); a new polychlorinated biphenyl (PCB) contaminated debris stream from operations in Bldg 676 where the supercompactor is housed (RPT-TRUW-88, *Acceptable Knowledge Summary for AMWTP WMF-676 PCB Contaminated Debris (BN600)*); and an S3000 mixed waste solids stream BNINW216, First and Second Stage Sludge from Rocky Flats Environmental Technology Site (RPT-TRUW-09, *Acceptable Knowledge Summary for First/Second Stage Sludge (BNINW216)*). The new supercompacted stream was developed when feedstock to the process from the Hanford site was introduced, which resulted in the addition of several new Resource Conservation and Recovery Act (RCRA) hazardous waste numbers.

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 testing. Random container selection memos for HSG and solids sampling lots, as appropriate, were reviewed along with corresponding HSG and solids analysis summary reports, along with data reconciliation packages that compared the results of characterization testing 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 testing, along with reviewing NCRs dealing with the identification and treatment of prohibited items.

In addition to the respective AK summary reports for these streams (RPT-TRUW-83, Rev. 1, RPT-TRUW-88, Rev. 0, and RPT-TRUW-09, Rev. 7), WAP-required and/or supporting information from AK upper-tier documents was reviewed by the audit team including RPT-TRUW-06, *AMWTP TRU Waste Management Acceptable Knowledge Elements (AK Baseline Report for AMWTP Generated Waste)*; RPT-TRUW-56, *Acceptable Knowledge Document for INL Stored Transuranic Waste-Rocky Flats Plant Waste*; RPT-TRUW-12, *AMWTP Waste Stream Designations*; RPT-TRUW-07,

Determination of Radioisotopic Content in TRU Waste Based on Acceptable Knowledge; and RPT-TRUW-05, Waste Matrix Code Reference Manual.

A total of five drums were tracked for the WAP-required traceability exercise. These included two drums from the BNINW216 waste stream, one of which was part of the latest solids sampling and analysis lot; two drums from the supercompacted waste stream BN510.1, both from distinct HSG sampling and analysis lots for the boxline process in the AMWTP facility; and one drum from HSG sampling and analysis lot 1 for the BN600 debris stream. In addition to reviewing HSG and SS&A BDRs, the relevant VE and RTR characterization BDRs were also examined. The audit team also compiled traceability data from active and historic waste container databases.

For each of the three waste streams reviewed, the WAP Compliance Tracking Table was completed by the generators and reviewed during the audit. As a result, document change requests (DCRs) were prepared and submitted for two of the three waste streams along with a DCR for AK procedure MP-TRUW-8.13, *Collection, Review, and Management of Acceptable Knowledge Documentation*, to address site-specific and/or state-enforced agreements in the assignment of hazardous waste numbers (HWNs). These Tracking Tables and DCRs are attached to the final report submitted to NMED in keeping with the agreement established between NMED and CBFO at the Oak Ridge Audit in February, 2011. The audit team recommends that AMWTP revise the affected AK documentation to incorporate changes to ensure compliance with the December 2010 WAP requirements. See section 7.2, Recommendation 1.

Overall, the acceptable knowledge process was determined to be adequate in addressing the requirements of the WAP and the WAC as applicable, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.4 Table C6-4, Headspace Gas Checklist

The audit team reviewed AMWTP implementing procedures MP-TRUW-8.8, Rev. 31, *Level I Data Validation*; INST-OI-43, Rev. 20, *HGAS Sampling and Analysis Operations*; INST-OI-45, Rev. 16, *Drum Filter Installation*; and INST-OI-50, Rev. 13, *WMF-615 Filter Insertion Operations*, relative to HSG sampling activities, to determine the degree to which procedures adequately address upper-tier requirements.

The audit team evaluated AMWTP operations for HSG sampling and analysis using an automated online sampling and analytical system with gas chromatography/mass spectrometry (GC/MS) and gas chromatography/thermal conductivity detector (GC/TCD). HSG sampling and analysis operations were evaluated by observing sampling and analysis operations, examining the equipment, conducting personnel interviews, and reviewing an HGAS BDR. BDR HS111-00018 was examined and found satisfactory. Successful participation in the latest PDP, Cycle 25A, was verified. Determination of method detection limits (MDL) and performance and accuracy (P&A) studies; laboratory logbooks; standard gas certifications; and the current WIPP approved equipment were audited and found to be compliant. Measuring and test equipment (M&TE) was audited and found to be acceptable. Training and qualification

of individuals performing sampling was confirmed to be acceptable to the AMWTP program. No concerns were identified during the audit.

Overall, HSG sampling activities were determined to be adequate in addressing upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4.5 Table C6-5, Radiography Checklist

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

The audit team reviewed AMWTP procedures MP-TRUW-8.8, Rev. 31, *Level I Data Validation*; INST-OI-81, Rev. 8, *Real-Time Radiography Operations (for WIPP Certification of Boxes)*; and INST-OI-12, Rev. 47, *Real-Time Radiography Operations (Drum)*, to determine their adequacy in addressing upper-tier requirements. The results of the review determined that the procedures adequately address 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.

The audit team evaluated RTR operations in Building 634. RTR operations for scan of container number 10352728 was observed using RTR Unit 101 for S3000 solid waste. The audit team also examined RTR operational log entries for both RTR Units 101 and 106, verifying logbook entries were logged correctly and reviewed by the facility shift supervisor as required. Both units are in the same area and had the required equipment.

The audit team examined the following RTR BDRs:

RTR11-00050	RTR11-00160	RTR11-00208
RTR11-00235	RTR11-00262	RTR11-00319

During the review of the audio/video media recording of the radiography, the audit team identified one concern. During RTR characterization scans, RTR operators need to clearly and audibly identify the contents of the container. Auditors observed that the audio/video media recording of the radiography examinations may not be loud enough to verify that the RTR operator is characterizing 100% of the waste container. If not corrected, this practice may result in a condition adverse to quality. See section 7.2, Observation 1.

The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing S3000 homogeneous solids and 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 C6-6, Visual Examination Checklist

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

The audit team reviewed procedures MP-TRUW-8.8, Rev. 31, *Level I Data Validation*; INST-OI-34, Rev. 25, *Non-Facility Visual Examination Operations*; INST-FOI-17, Rev. 23, *Facility Visual Examination Operations*; INST-FOI-22, Rev. 0, FC-3, *Visual Examination of S3000 Waste in the Facility*; and LST-RTQP-03-IM, Rev. 0, *WIPP Training Requirements Implementation Matrix*, to determine their adequacy in addressing upper-tier requirements. The results of the review determined that the procedures adequately address requirements.

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. AMWTP is performing VE for the Box Line Visual Examination (VEB) for S5000 debris waste and Visual Examination Sludge Closure (VSC) for the initial certification of S3000 solids waste.

The audit team conducted interviews with VE operators and reviewed training files. The audit team evaluated VE operations in Building WMF-676. VE operations for container number 10426237 were observed being performed in the North Box Line for S5000 debris waste. VE operations for container number 10417997 in the South Box Line for S3000 solid waste were also observed. The audit team also examined VE operational logbook entries for both box lines and verified entries were logged correctly and reviewed by the facility shift supervisor as required.

The audit team examined the following VE BDRs:

VEB10-00880	VEB11-00449	VEB11-00850
VSC11-00011	VSC11-00015	VSC11-00017

The audit team examined training records for VE operators/independent technical reviewers (ITRs) and SPMs and confirmed the appointment of six AMWTP VE experts (VEEs). The audit team verified that VE operators, ITRs, and SPMs were appropriately qualified as required. During the review of the training files the audit team identified one non-WAP-related recommendation as described in the interim audit report issued November 30, 2011.

The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for characterizing S3000 homogeneous solids and S5000 debris waste using the visual examination 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 conditions adverse to quality (CAQs) 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 Quality Assurance (QA) program.

No CARs were issued during this audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. The audit team members and the audit team leader (ATL) evaluate the CAQs to determine if they are significant using the following definitions:

CAQ – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant CAQ – 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.

Once a determination is made that the CAQ is not significant, the audit team member, in conjunction with the ATL, determines if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit. Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as corrected during audit (CDA) according to the definition below.

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 CAQs were corrected during this audit.

7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify potential problems or suggestions for improvement that should be communicated to the audited organization. The audit team member, in conjunction with the ATL, evaluates these conditions and classifies them as Observations or Recommendations using the following definitions.

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

Recommendation – Suggestion that is directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

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

7.1 Observations

The following Observation was identified during the audit.

Observation 1

During the review of the audio/video media recording of the radiography, the audit team identified the following concern. During RTR characterization scans, RTR operators need to clearly and audibly identify the contents of the container. Auditors observed that the audio/video media recording of the radiography examinations may not be loud enough to verify that the RTR operator is characterizing 100% of the waste container. If not corrected, this practice may result in a condition adverse to quality.

7.2 Recommendations

One Recommendation was provided to AMWTP Management as a result of the audit.

Recommendation 1

The audit team recommends that AMWTP revise the affected AK documentation to ensure compliance with the December 2010 WAP requirements. The audit team reviewed three waste streams. The WAP Compliance Tracking Table, developed in an agreement established between NMED and CBFO at the Oak Ridge Audit in February, 2011, was completed by the generators and reviewed during the audit. As a result, DCRs were prepared and were submitted for two of the three waste streams along with a DCR for AK procedure MP-TRUW-8.13, *Collection, Review, and Management of Acceptable Knowledge Documentation*, to address site-specific and/or state-enforced agreements in the assignment of HWNs. These tracking tables and DCRs are attached to the final report.

8.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit**
- Attachment 2: Personnel Contacted During the Audit by Area**
- Attachment 3: Objective Evidence**
- Attachment 4: Table of Audited Documents**
- Attachment 5: List of Processes and Equipment Reviewed**
- Attachment 6: Procedure Revision Matrix**

PERSONNEL CONTACTED DURING THE AUDIT

PERSONNEL CONTACTED DURING AUDIT A-12-03				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Angel Aguinaga	ITG Coring and Solids Sampling SME		X	
Jade M. Anderson	ITG Software Lead	X	X	X
Travis Baldwin	ITG Radiological Technician		X	
Conley Beebe	ITG Coring Operator		X	
Dave Becker	ITG Shift Supervisor		X	
Keri Brashier	ITG Procurement Specialist		X	
Gail Brown	ITG Document Control Manager	X	X	X
F. Dave Butler	ITG Training Specialist	X	X	X
George Byram	ITG SPM Lead	X	X	X
Norma Castaneda	CBFO NTP Observer	X	X	X
Steve Carpenter	ITG AKE	X	X	X
John Cummings	ITG RTR Operator		X	
John Cunningham	ITG VE Operator		X	
Ken Downs	ITG VE Operator		X	
Elvin Dumas	ITG QA Manager	X	X	X
Reese Evans	ITG Coring Operator		X	
Courtland Fesmire	CBFO QA Representative	X	X	
Dorothy Gill	EPA Observer	X	X	
John Godak	ITG System Engineer		X	
Ted Griffin	ITG Nuclear Facility Manager			X
David Haar	ITG Waste Programs Manager	X	X	X
Jermaine Hagen	ITG VE Operator		X	
Rod Harrison	ITG Procurement Manager	X	X	
Jared Hawley	ITG Production Support	X	X	

PERSONNEL CONTACTED DURING AUDIT A-12-03				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Jason Hayne	ITG RTR SME	X	X	X
Steve Holmes	NMED Observer	X	X	X
J. M. Jackson	ITG Production Manager			X
Nolan Jacobs	ITG NDA Operator		X	
Jeff Jensen	ITG Engineer		X	X
Pete Johansen	Idaho DEQ Observer	X	X	
Shawn Jordon	ITG RTR Operator		X	
Nancy Kirk	ITG AKE		X	
Karl Kolbert	ITG System Engineer		X	
Bruce LaRue	Idaho DEQ Observer	X	X	X
Denise Lee	ITG RTR ITR	X	X	
Kenneth Licklitter	CBFO NTP Observer	X	X	
Ricardo Maestas	NMED Observer	X	X	X
Michael Martin	ITG Training Lead	X		
Stormie McCurdy	ITG WCO		X	
Thomas Morgan	CBFO NTP Observer	X	X	
Randall C. Morris	ITG AKE		X	
William J. Muirhead	ITG IT Manager	X	X	X
John Nicklas	ITG HSGS Chemist	X	X	X
Casey Nielson	ITG Supply Chain Inspector		X	
Seth Oldham	ITG HSG Operator		X	
Michael Parrish	ITG Training Manager	X	X	
Sue Peterman	TRU Programs Manager	X	X	X
R. P. Raaz	ITG Project Manager	X		X
Scott Raish	ITG Business Manager			X
Cesar Rojas	ITG HSGS Chemist	X		X

PERSONNEL CONTACTED DURING AUDIT A-12-03				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Stephanie Rudolph	ITG M&TE Custodian		X	
Kaye Ryman	ITG WCO		X	
Eric Schweinsberg	ITG SPM	X	X	X
Richard Scott	ITG VE Operator		X	
James Seamans	ITG NDA SME	X	X	X
Jake Shuman	ITG Supply Chain inspector		X	
Jim Simonds	ITG Contracts and Records Manager	X		X
Michael Sorenson	ITG VEE			X
C. A. Stepzinski	ITG Characterization and Waste Handling Manager		X	
Matthew Storms	ITG WDS SME		X	
David Summers	ITG Coring Operator		X	
Jeremy Szabo	ITG Waste Management Lead		X	
Cindy Tiegs	ITR RTR Operator		X	
Gina Tedford	ITG SPM Audit Lead	X	X	X
Steve Turner	ITG NDA Systems Engineer		X	
Tim Venniman	ITG AKE		X	
Connie Walker	NMED Observer		X	
L. J. Walker	ITG VEE	X	X	X
Sherri Walker	Records SME	X	X	X
Jerry Wells	DOE-ID Project Manager	X		X
Andy Wood	ITG VE Operator		X	

PERSONNEL CONTACTED DURING THE AUDIT BY SUBJECT AREA

Personnel Qualification and Training	F. Dave Butler Michael Parrish
Control of Nonconforming Items	Elvin Dumas
Records	Gail Brown Sherrie Walker
Sample Control	John Nicklas Cesar Rojas C. A. Stepzinski Angel Aguinaga David Summers Seth Oldham
Waste Certification/Project Level Data V&V	George Byram Gina Tedford Sue Peterman
Solids Sampling and Analysis	John Nicklas Cesar Rojas C. A. Stepzinski Angel Aguinaga David Summers Seth Oldham Conley Beebe
Acceptable Knowledge	Steve Carpenter Carolyn Abbott Micky Johnson Nancy Kirk Whitney St. Michel
Headspace Gas Sampling and Analysis	John Nicklas Cesar Rojas Seth Oldham
Real-Time Radiography	Denise Lee Sue Peterman Jason Hayne Shawn Jordan Cindy Tieg John Cummings
Visual Examination	LJ Walker Ken Downs Richard Scott Andy Wood John Cunningham Jermaine Hagen Travis Baldwin
WIPP Waste Information System (WWIS Data Entry)	Matthew Storms Stormy McCurdy Kaye Ryman

**OBJECTIVE EVIDENCE
IS LOCATED
IN BOXES**

Table of Audited Documents

NUMBER	PROCEDURE NUMBER	TITLE
1.	CI-IDA-NDA-0035	Calibration Verification & Confirmation Procedure for the Integrated Waste Assay (IWAS) at AMWTP, Canberra Industries
2.	CI-IDA-NDA-0055	Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Canberra Industries
3.	RPT-TRUW-03	Drum Assay Technical Review Report
4.	INST-CD&M-11.1.2	Facility Modification Proposal Preparation
5.	INST-CD&M-11.2.1	Software Version Control
6.	INST-CD&M-11.2.2	Software Inventory Classification
7.	INST-CD&M-11.2.3	System Data Change Requests
8.	INST-CMNT-10.14.1	Testing In-Plant and Process Instrumentation
9.	INST-CMNT-10.5.1	Calibration and Control of Measuring and Test Equipment
10.	INST-FOI-01	In-Plant Drum Assay Operations
11.	INST-FOI-17	Facility Visual Examination Operations
12.	INST-FOI-20	Supercompactor and Post-Compaction Operations
13.	INST-OI-09	Retrieval Inspection Station Operations
14.	INST-OI-11	Waste Container Handling
15.	INST-OI-12	Real-Time Radiography Operations (Drum)
16.	INST-OI-14	Drum Assay Operations
17.	INST-OI-16	Drum Coring Operations
18.	INST-OI-34	Non-Facility Visual Examination Operations
19.	INST-OI-43	HGAS Sampling and Analysis Operations
20.	INST-OI-45	Drum Vent Filter Installation
21.	INST-OI-50	WMF-615 Filter Insertion Operations
22.	INST-OI-73	Manual Drum Coring
23.	INST-OI-75	Container-in-container Sampling
24.	INST-OI-81	Real-Time Radiography Operations (WIPP Certification of Boxes)
25.	INST-TRUW-8.1.1	Drum Assay Post Maintenance Calibration & Verification
26.	MP-CD&M-11.1	Change Control (Facility)
27.	MP-CD&M-11.2	Software Quality Assurance
28.	MP-CMNT-10.14	In-Plant and Process Instrumentation Testing Program
29.	MP-CMNT-10.5	Measuring and Test Equipment Program
30.	MP-DOCS-18.1	Developing Written Work Instructions
31.	MP-DOCS-18.2	Records Management
32.	MP-DOCS-18.3	Developing Management Procedures
33.	MP-DOCS-18.4	Document Control
34.	MP-M&A-17.1	Management Assessment
35.	MP-M&A-17.2	Independent Assessments
36.	MP-M&A-17.3	Quality Assurance Surveillance
37.	MP-PCMT-15.1	Acquisition of Material and Services
38.	MP-PCMT-15.21	Material Management
39.	MP-Q&SI-5.1	Investigation & Root Cause Analysis
40.	MP-Q&SI-5.3	Corrective Action
41.	MP-Q&SI-5.4	Identification of Nonconforming Conditions
42.	MP-Q&SI-5.6	Graded Approach
43.	MP-Q&SI-5.8	Qualifying Supply Chain Inspectors, Auditors, Lead Auditors and Technical Specialists
44.	MP-RTQP-14.16	Training Program Evaluation
45.	MP-RTQP-14.19	Training Records Administration
46.	MP-RTQP-14.20	Training Implementation Matrix (TIM)

NUMBER	PROCEDURE NUMBER	TITLE
47.	MP-RTQP-14.4	Personnel Qualification and Certification
48.	MP-RTQP-14.6	Job Analysis
49.	MP-TRUW-8.1	Certification Plan for INL Transuranic Waste
50.	MP-TRUW-8.2	Quality Assurance Project Plan (QAPjP)
51.	MP-TRUW-8.5	TRU Waste Certification (Includes OSM)
52.	MP-TRUW 8.8	Level I Data Validation
53.	MP-TRUW 8.9	Level II Data Validation
54.	MP-TRUW 8.11	Data Reconciliation
55.	MP-TRUW 8.12	Waste Receipt and Shipping Inspection
56.	MP-TRUW 8.13	Collection, Review, and Management of Acceptable Knowledge Documentation
57.	MP-TRUW 8.14	Preparation of Waste Stream Profile Forms
58.	MP-TRUW 8.17	Co-located Core Sampling Control Charts
59.	MP-TRUW 8.25	Random Selection of Containers for HSG and Solids Sampling and Analysis
60.	MP-TRUW 8.26	Reports to Management
61.	MP-TRUW 8.34	WIPP Sample Transfers

Process and Equipment Reviewed

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
NEW PROCESSES OR EQUIPMENT				
NONE				
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
The following processes and equipment were evaluated during CBFO Audit A-10-24				
Headspace Gas (HSG)				
9HG4	Procedure – INST-OI-43 Description – CTI Headspace Gas Sampling System – Unit 001	Solids (S3000) Debris (S5000)	YES	N/A
Solids Sampling				
9DC1	Drum Coring Procedures – INST-OI-16 and INST-OI-73 (<i>Manual Drum Coring Operation</i>) and INST-OI-75 Description – Drum Coring and Sample Collection System	Solids (S3000) Soils/Gravel (S4000)	YES	N/A
Nondestructive Assay (NDA)				
9DA1	Procedure – INST-OI-14 Description – Canberra Drum Assay System Z-211-102	Solids (S3000) Debris (S5000)	N/A	Yes
9DA2	Procedure – INST-OI-14 Description – Canberra Drum Assay System Z-211-103	Solids (S3000) Debris (S5000)	N/A	Yes
9DA3	Procedure – INST-FOI-01 Description – Canberra Drum Assay System Z-390-100	Debris (S5000)	N/A	Yes
9DA4	Procedure – INST-FOI-01 Description – Canberra Drum Assay System Z-390-101	Debris (S5000)	N/A	Yes

Process and Equipment Reviewed

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
Nondestructive Examination (NDE)				
9RR1	Procedure – INST-OI-12 and INST-OI-81 Description – Real-Time Radiography (RTR) System	Solids (S3000) Debris (S5000)	YES	YES
9RR2	Procedure – INST-OI-12 and INST-OI-81 Description – Real-Time Radiography System	Solids (S3000) Debris (S5000)	YES	YES
Visual Examination				
9VE2	Visual Examination Procedure – INST-OI-34 Description – Visual Examination (in lieu of RTR) (VEC)	Solids (S3000) Debris (S5000)	YES	YES
9VE3	Visual Examination Procedure – INST-OI-34 Description – Newly Generated Waste Visual Examination Closure (VNC)	Solids (S3000) Debris (S5000)	YES	YES
9VE5	Visual Examination Procedure – INST-FOI-17 Description – Visual Examination (in lieu of RTR) (VEC)	Debris (S5000)	YES	YES
9VE6	Visual Examination Procedure – INST-FOI-17 Description – Newly Generated Waste Visual Examination Closure (VNC)	Debris (S5000)	YES	YES

Process and Equipment Reviewed

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
9VE7	Visual Examination Procedure – INST-FOI-17 Description – Box Line Visual Examination (VEB) – Box to drum repackaging	Debris (S5000)	YES	YES
9VE8	Visual Examination Procedure – INST-FOI-17 Description – Box Line Visual Examination (VEB) – Drum to new drum repackaging	Debris (S5000)	YES	YES
9VE10	Visual Examination Procedure – INST-OI-34 Description – Box Line Visual Examination (VEB) – Drum to new drum repackaging	Solids (S3000) Debris (S5000)	YES	YES

PROCEDURE REVISION MATRIX

No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
Quality and Safety Improvement					
1	MP-Q&SI-5.1	Investigation and Root Cause Analysis	Rev. 8	Rev. 8	No revision since Audit A-10-24
2	MP-Q&SI-5.3	Corrective Action	Rev. 10	Rev. 11	Rev. 11 - DCR-9280. Incorporated allowance in Section 3.2 for the use of the NCR reporting process for ORPS events that are equipment failure related, aligning with MP-COPS-9.6 and QA program intent. Incorporated DOCS-BLUESHEET-05 and updates for periodic review. Changed NTS to NNSS.
3	MP-Q&SI-5.4	Identification of Nonconforming Conditions	Rev. 19	Rev. 20	Rev. 20 - DCR-9873. Periodic review and update. Reference Action Items 56147 and 58550.
4	MP-Q&SI-5.6	Graded Approach	Rev. 3	Rev. 3	No revision since Audit A-10-24
5	MP-Q&SI-5.8	Qualifying Supply Chain Inspectors, Auditors, Lead Auditors, and Technical Specialists	Rev. 7	Rev. 7	No revision since Audit A-10-24
TRU Management					
6	MP-TRUW-8.1	Certification Plan for INL Transuranic Waste	Rev. 19	Rev. 21	<p>Rev. 20 - DCR-9709. Incorporate the WIPP Waste Acceptance Criteria, Rev. 7.0. Revision 7.0 incorporates extensive editorial changes and includes renumbering of the pages, renumbering of the references to correspond with the order of their appearance in the document, alignment of the cited sections of the WIPP Hazardous Waste Permit Renewal, renumbering of the tables, reformatting the table addressing 239Pu FGE limits for payload containers to minimize the use of footnotes, numerous punctuation and grammatical changes, addition/deletion of acronyms, updates to Internet links, and minor text changes for the purposes of clarification, including the incorporation of a statement in Section 3.1.4.1 that Appendices F and G specify the methodologies used to quantify the waste component limits of interest to EPA. Also added a statement in Sections 3.1 and 4.1 that the WIPP Waste Information System (WWIS) database is a subsystem of the Waste Data System (WDS).</p> <p>Rev. 21 - DCR-10200. Incorporated the WIPP Waste Acceptance Criteria, Revision 7.1 and 7.2. Revision 7.1 incorporates editorial changes. These changes include changes in terminology to mirror the WCPIP, the incorporation of clarification text in Sections 3.0 and A.6.1 as recommended by the U.S.</p>

PROCEDURE REVISION MATRIX

No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
					<p>Environmental Protection Agency, the reformatting of bullet lists and table footnote fonts to improve readability, and the correction of typographical errors. This document does not address the editorial changes that align Section 4.2.5 with the radiation dose equivalent dose rate requirements from the Remote-Handled (RH) TRU Waste Characterization Program Implementation Plan (WCPIP) or the clarifications addressed in Section 4.0 as the AMWTP does not ship RH waste.</p> <p>Revision 7.2 incorporates the requirements for the TRUPACT-III and SLB2. References have been updated to include the Certificate of Compliance and the Transuranic Waste Authorized Methods for Payload Control for the TRUPACT-III. Other changes include updates to the list of acronyms, glossary, and Table A-1.</p>
7	INST-TRUW-8.1.1	Drum Assay Post-Maintenance Calibration and Verification	Rev. 11	Rev. 11	No revision since Audit A-10-24
8	MP-TRUW-8.2	Quality Assurance Project Plan	Rev. 13	Rev. 15	<p>Rev. 14 - DCR-9605. Incorporate the new WIPP Hazardous Waste Permit Renewal structure (attachments and sections from B to C and modules to parts/subparts), revise the definitions of <i>waste stream</i> and <i>ITR</i>, delete (cis)1, 2-dichloroethylene, clarify the RTR training drum VEE training, RTR independent replicate scan and oversight functions, and AK.</p> <p>Rev. 15- DCR-10191. Incorporate the Class 2 PMR to add the TRUPACT-III and Standard Large Box 2. Also incorporated editorial comments from the Class 1 permit notification dated 07/11/2011.</p>
9	MP-TRUW-8.5	TRU Waste Certification	Rev. 25	Rev. 25	No revision since Audit A-10-24
10	MP-TRUW-8.8	Level I Data Validation	Rev. 29	Rev. 31	<p>Rev. 30 - DCR-9635. Incorporate the WIPP Permit Renewal.</p> <p>Rev. 31 - DCR-10152. Various revisions to address CAR 61367 and to address sludge processing in AMWTF.</p>
11	MP-TRUW-8.9	Level II Data Validation	Rev. 22	Rev. 24	<p>Rev. 23- DCR-9556. As part of AI 52095, moved "batch data report" information out of Section 3.0 to Section 4.0, Definition.</p> <p>Rev. 24 -</p>

PROCEDURE REVISION MATRIX

No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
12	MP-TRUW-8.11	Data Reconciliation	Rev. 17	Rev. 22	<p>Rev. 18 - DCR-9009. Added RPT-TRUW-83 to step.</p> <p>Rev. 19 - DCR-9612. Changed references from "B3-2 through B3-9" to "C3-2 through C3-9" to implement the new numbering sequence from the new WIPP Permit Renewal.</p> <p>Rev. 20 - DCR-9643. Revert content back to same as approved in revision 18 as changes identified for revision 19 must be held until MP-TRUW-8.2, Rev. 14 is issued.</p> <p>Rev. 21 - DCR-9649. Changed references from "B3-2 through B3-9" to "C3-2 through C3-9" to implement the new numbering sequence from the new WIPP Permit Renewal and change the definition of a waste stream.</p> <p>Rev. 22 - DCR-9777. Changes were made to satisfy CAR#57571, AI#59136 and CAR#57569.</p>
13	MP-TRUW-8.12	Waste Receipt and Shipping Inspection	Rev. 22	Rev. 22	No revision since Audit A-10-24
14	MP-TRUW-8.13	Collection, Review, and Management of Acceptable Knowledge Documentation	Rev. 21	Rev. 23	<p>Rev. 22 - DCR-9633. Revised to incorporate WIPP WAP permit renewal changes. Updated sections throughout for consistency with AK documentation and to clarify content of AK reports. Updated Section 3.1 to reflect use of the AK Database. Updated Section 4.0 to reflect forms included WSP package submittals. Deleted Appendix F and renumbered Appendix H to become Appendix F.</p> <p>Rev. 23 - DCR-9799. Steps 3.2.6 and 3.2.6.1 revised to clarify WIPP-WAP and WAC requirements for additional/supplemental AK documentation.</p>
15	MP-TRUW-8.14	Preparation of Waste Stream Profile Forms	Rev. 11	Rev. 12	Rev. 12 - DCR-9637. Revised Sections 3.1, 3.3, and 4.0 to incorporate WIPP WAP permit renewal changes. Updated Section 4.0 to reflect forms included in WSP package submittals. Also made editorial changes.
16	MP-TRUW-8.17	Co-Located Core Sampling Control Charts	Rev. 7	Rev. 7	No revision since Audit A-10-24
17	MP-TRUW-8.25	Random Selection of Containers for Headspace Gas and Solids Sampling and Analysis	Rev. 17	Rev. 18	Rev. 18 - DCR-9648. Incorporated changes to implement the WIPP Permit Renewal.
18	MP-TRUW-8.26	Reports to Management	Rev. 5	Rev. 5	No revision since Audit A-10-24
19	MP-TRUW-8.34	WIPP Sample Transfers	Rev. 6	Rev. 6	No revision since Audit A-10-24

PROCEDURE REVISION MATRIX

No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
20	CI-IDA-NDA-0035	Calibration Verification & Confirmation Procedure for the Integrated Waste Assay System (IWAS) at AMWTP Canberra Industries	Rev. 3	Rev. 3	No revision since Audit A-10-24
21	CI-IDA-NDA-0055	Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems (IWAS) for the Characterization of TRU Drums at the AMWTP Canberra Industries	Rev. 1	Rev. 1	No revision since Audit A-10-24
Conduct of Maintenance					
22	MP-CMNT-10.5	Measuring and Test Equipment Program	Rev. 8	Rev. 9	Rev. 9 - DCR-9340. Made various changes for clarity and consistency.
23	INST-CMNT-10.5.1	Calibration and Control of Measuring and Test Equipment	Rev. 10	Rev. 11	Rev. 11 - DCR-9341. Clarified the use of the "shipper" throughout the document.
24	MP-CMNT-10.14	In-Plant and Process Instrumentation Testing Program	Rev. 5	Rev. 5	No revision since Audit A-10-24
25	INST-CMNT-10.14.1	Testing In-Plant and Process Instrumentation	Rev. 7	Rev. 7	No revision since Audit A-10-24
Control of Design and Modification					
26	MP-CD&M-11.1	Change Control	Rev. 8	Rev. 8	No revision since Audit A-10-24
27	INST-CD&M-11.1.2	Facility Modification Proposal Preparation	Rev. 10	Rev. 11	Rev. 11 - DCR-9575. Incorporated document to resolve CARs 54791 and 54318.
28	MP-CD&M-11.2	Software Quality Assurance	Rev. 15	Rev. 16	Rev. 16 - DCR-9934. Changes made to resolve AI-59403 associated with CAR-56882.
29	INST-CD&M-11.2.1	Software Version Control	Rev. 7	Rev. 7	No revision since Audit A-10-24
30	INST-CD&M-11.2.2	Software Inventory Classification	Rev. 8	Rev. 9	Rev. 9 - DCR-9691. Revised to add five new codes to Appendix A, to formalize the use of LST-PAIT-02, and to make certain minor editorial corrections.
31	INST-CD&M-11.2.3	System Data Change Request	Rev. 5	Rev. 5	No revision since Audit A-10-24
Training and Qualification					
32	MP-RTQP-14.4	Personnel Qualification and Certification	Rev. 16	Rev. 17	Rev. 17 - DCR-9886. Minor change to add note to Step 3.5.2 that clarifies the requirements of DOE O 5480.20A.
33	MP-RTQP-14.6	Job Analysis	Rev. 6	Rev. 6	No revision since Audit A-10-24
34	MP-RTQP-14.16	Training Program Evaluation	Rev. 5	Rev. 5	No revision since Audit A-10-24
35	MP-RTQP-14.19	Training Records Administration	Rev. 5	Rev. 5	No revision since Audit A-10-24
36	MP-RTQP-14.20	Training Implementation Matrix	Rev. 8	Rev. 8	No revision since Audit A-10-24

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Procurement					
37	MP-PCMT-15.1	Acquisition of Material and Services	Rev. 10	Rev. 11	Rev. 11 - DCR-9579. Revised to close CARs 53728, 54546, and 54556 (AI 54941). Created new Form-2011 and renamed Form-1948. Created new Appendix I for commercial grade designation. Separated emergency procurement steps into Section 3.10. Revised for readability and document flow.
38	MP-PCMT-15.21	Material Management	Rev. 6	Rev. 6	No revision since Audit A-10-24
Management and Independent Assessments					
39	MP-M&IA-17.1	Management Assessment	Rev. 10	Rev. 10	No revision since Audit A-10-24
40	MP-M&IA-17.2	Independent Assessment	Rev. 8	Rev. 9	Rev. 9 - DCR-9600. Changes made to implement corrective action for CAR 55228, Action Item 55525, to define the independent assessment requirements of DOE O 450.1A for assessment of the Environmental Management System to meet the internal audit requirement of ISO 14001:2004 (E).
41	MP-M&IA-17.3	Quality Assurance Surveillance	Rev. 7	Rev. 7	No revision since Audit A-10-24
Documents and Records					
42	MP-DOCS-18.1	Developing Written Work Instructions	Rev. 11	Rev. 12	Rev. 12 - DCR-9782. Revise to require incorporation of hazard assessment results into INSTs, update cover page examples, refine definitions for controlled activity and general use, and add that P&Ls/ Pre-Reqs, and steps must within the control of the performer to implement.
43	MP-DOCS-18.2	Records Management	Rev. 13	Rev. 14	Rev. 14 - DCR-10355. Revised to incorporate Form-2034; to capture new record types; to create new record categorizations and disposition types for ACL Lab records; and various editorial changes as documented on the DCR.
44	MP-DOCS-18.3	Developing Management Procedures	Rev. 7	Rev. 7	No revision since Audit A-10-24
45	MP-DOCS-18.4	Document Control	Rev. 30	Rev. 34	Rev. 31 – DCR-9515. Revised to add descriptions/definitions to document types in Appendix B (AI 53393), remove controlled copy responsibilities from SS, add review requirements for policies and various clarifications in Appendix A, and rewrite Section 3.11 to capture process for submitting AK documents to CBFO. Rev. 32 – DCR-9739. Corrective Action for CAR 54018 to formalize new Temporary Operating Instruction (TOI) process.

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No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
					<p>Rev. 33 – DCR-9875. Revised to strengthen the FC process with respect to requirement steps for CAR 57986 and revise Appendix A per various requests.</p> <p>Rev. 34 - DCR-10185. Revised to incorporate DOCS-BLUESHEET-08, Analytical Chemistry Laboratory (ACL) procedure process and requirements, PORC review of operational instructions, change of validation types, expanding bluesheet definition to include transition specific changes, and updated Appendix A, Minimum Reviews.</p>
Retrieval and Characterization					
46	INST-OI-09	Retrieval Enclosure Waste Container Extraction	Rev. 36	Rev. 42	<p>Rev. 40 – DCR=9367. Incorporate changes regarding containers with small breaches. Incorporate FC-1 to make permanent.</p> <p>Rev. 41 – DCR-9657. Incorporate FC-1 to make permanent.</p> <p>Rev. 42 – DCR-10219. Complete rewrite to reflect the WTS inspection station methods used in the creating and tracking retrieved waste containers in the TSA-RE.</p> <p>Rev. 42 FC-1 – DCR 10377. Change made as a result of MSA findings, so that procedure can be performed correctly, and to identify additional container types used.</p>
47	INST-OI-11	Waste Container Handling	Rev. 39	Rev. 44	<p>Rev. 40 – DCR-9488. Incorporated changes due to Class 1 permit modification.</p> <p>Rev. 41 – DCR-9704. Added additional IDC changes to table. Made editorial changes to update reference titles and documents that have been superseded.</p> <p>Rev. 42 – DCR-9959. Deleted Form-2017 references (no longer needed), corrected the incompatible IDCs in the table(s); added steps for clarification for half-spacers or half-plywood sheets; and Long-term Order 2011-006 changes. Also made editorial to add the performer for the pre-job and post-job review steps.</p> <p>Rev. 43 – DCR-10093. Changes to allow storage of pyrophoric materials in WMF-610 and the Type I and Type IIs, added new columns to tables for interim storage for cargo containers for macro encapsulation and 100-/110-gal drums, new section for toaster cover installation, and to implement CWRs from RPT-NFCS-15, SF-1, and SF-2, Implements 2011 annual DSA changes</p> <p>Rev. 43 FC-1 – DCR-10319. Added new step 4.1.7.4 to Notify the PSM.</p> <p>Rev. 44 – DCR-10352. Incorporated FC-1 DCR-10319 change, made step number changes, added wording to incorporate changes to EDF-0266.</p>

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No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
48	INST-OI-12	Real-Time Radiography Operations (Drum)	Rev. 44	Rev. 47	<p>Rev. 45 – DCR-9494. Incorporated FCs 1 through 5 (DCRs-9451; 9517; 9534; 9543; 9549) as permanent.</p> <p>Rev. 45 FC-1 - DCR-9560. Incorporated changes to allow operators to restore programs required to perform an audio/video recording; delete appendix B, add reference to "or eSOMS equivalent" when referencing Form-1374.; update kV values where appropriate.</p> <p>Rev. 46 - DCR-9676. Incorporate Revision 45 FC-1 (DCR-9560) and the WIPP Permit Renewal.</p> <p>Rev. 47 - DCR-10137. Changed to Controlled Activity. Updated steps and notes to match operational changes. Added clarification to reduce duplicate NCRs and to minimize rework. Resolves CAR 54805.</p>
49	INST-OI-14	Drum Assay Operations	Rev. 25	Rev. 27	<p>Rev. 26 – DCR-9816. Incorporate field changes from DCRs-9548,-9751 and implement Action C from LCO 3.2, Annual TSR update.</p> <p>Rev. 27 - DCR-10198. Changed use type to "Controlled Activity" (AI# 60419).</p>
50	INST-OI-16	Drum Coring Operations	Rev. 34	Rev. 37	<p>Rev. 35 – DCR-9595. Added Qualified Operations Technician or Characterization Shift Supervisor to Section 2.0 under Authorized Individual.</p> <p>Rev. 36 – DCR 9714. Changes to incorporate Data Quality requirements, provide further direction and clarification, improve process flow, implement SCR 4090, and incorporate annual TSR update by removing the word "previously. "</p> <p>Rev. 37 – DCR-I 0084. Made changes throughout the document in order to appropriately convert from General Use to Controlled Activity use-type. Removed some antiquated steps (e.g., VE section).</p> <p>Rev. 37 FC-1 – DCR – Changes needed to support changes to trip blank volumes. Delete steps that are duplicated and performed in other steps.</p>
51	INST-OI-34	Non-Facility Visual Examination Operations	Rev. 22	Rev. 25	<p>Rev. 23 - DCR-9584. Incorporated the WIPP Renewal Request and Waste Acceptance Criteria changes.</p> <p>Rev. 23 FC-1 - DCR-9717. Add Form-1900, AMWTP Offsite Waste Stream Profile, as information resource.</p> <p>Rev. 24 - DCR-9773. Added additional IDCs to Exhibit 14.</p> <p>Rev. 24 FC-1 - DCR-9979. Changes needed for WTS functionality.</p>

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No	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
					<p>Rev. 25 - DCR-10073. Incorporated field change 1 (DCR-9979) and deleted IDC RF-095 to provide consistency with RPT-ESH-014.</p>
52	INST-OI-43	HGAS Sampling and Analysis Operations	Rev. 18	Rev. 20	<p>Rev. 19 – DCR-9481. Incorporated DCR-9194 to make field change permanent. Rev. 20 - DCR 9647. Incorporated the WIPP Permit Renewal.</p>
53	INST-OI-45	Drum Filter Installation	Rev. 12	Rev. 16	<p>Rev. 13 – DCR-9500. Incorporated DCR-9212 to make field change permanent. Rev. 14 – DCR 9836. Annual TSR update, remove word “previously.” Rev. 15 – DCR 9982 – Revised to add instruction for changing out gloves and to redesignate as Controlled Activity.” Rev. 16 – DCR-10331. DCR-10331. Changed step 4.3.2 per CAR 63176, added roll down references for Hazard Assessment implementing steps. Rev. 16 FC-1 – DCR-10442. Revised to delete Step 3.2.6, and remove DS-220-001 and, in step 3.2.7.</p>
54	INST-OI-50	WMF-615 Filter Insertion Operations	Rev. 11	Rev. 13	<p>Rev. 12 – DCR-9745. Added new Step 3.2.10.1 and changed “HOMED” to “AT FULLY RAISED” in Step 4.2.15.2. Rev. 12 FC-1 - DCR-10062. Changed glove inspection and frequencies in Step 3.2.10.1 from 12 to 18 months. Rev. 13 - DCR-10170. CAR 63176, AI 54815. This DCR supersedes the changes made by FC-1, DCR-10062. Added steps to prevent venting roaster oxide containers. Added section for responding to a breached DVF survey station glove and for damaged or expired DVF survey station glove change-out.</p>
55	INST-OI-73	Manual Drum Coring Operations	Rev. 7	Rev. 10	<p>Rev. 8 – DCR-9699. Added Qualified Operations Technician or Characterization Shift Supervisor to Section 2.0 under Authorized Individual. Rev. 9 – DCR 9839. Annual TSR update, remove word “previously.” Made changes needed for STS offsite shipment. Rev. 10 – DCR-10109. Made changes throughout the document in order to appropriately convert from General Use to Controlled Activity use-type. Removed some antiquated steps (e.g., VE section). Rev. 10 FC-1 – DCR-10284, change needed for new laboratory requirements for trip blanks.</p>

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56	INST-OI-75	Container-in-Container Sampling	Rev. 4	Rev. 8	<p>Rev. 5 – DCR-9552. Incorporated DCR-9511, operational requirements and changes to clarify procedure.</p> <p>Rev. 6 – DCR-9700. Added Qualified Operations Technician or Characterization Shift Supervisor to Section 2.0 under Authorized Individual.</p> <p>Rev. 7 – DCR-9856. Changes to include VE in operations, allow OTs to skip steps relating to sampling, and add requirements for additional samples taken,</p> <p>Rev. 8 - DCR 10201. Changed use type to "Controlled Activity" and corrected title for INST-OT-24.</p> <p>Rev. 8 FC-1 – DCR-10279, changes to required trip blank volumes, delete duplicated steps, move steps to proper location in document.</p> <p>Rev. 8 FC-2 – DCR 10390. Insert sub-step to allow OT to overpack a drum if needed.</p>
57	INST-OI-81	Real-Time Radiography Operations (for WIPP Certification of Boxes)	Rev. 6	Rev. 8	<p>Rev. 7 – DCR-9497. Incorporated FC-1 (DCR-9454) and FC-2 (DCR-9568). Incorporate the new WIPP Hazardous Waste Permit language changes. Also corrected inconsistencies in FCs compared to OI-12 FCs.</p> <p>Rev. 8 - DCR-10139. Changed to Controlled Activity. Updated steps and notes to match operational changes. Added clarification to reduce NCRs and to minimize rework. Resolves CAR 54805.</p>
Treatment Facility					
58	INST-FOI-01	In-Plant Drum Assay Operations	Rev. 19	Rev. 22	<p>Rev. 20 - DCR-9608. Incorporated LCO-3.2 action 3 (new) regarding putting check containers in SUSPENSION MODE as part of the 2010 annual update to the TSR.</p> <p>Rev. 21 - DCR-10046. Changed procedure to a controlled activity, made changes that allow for manual control of devices during operations, made other changes to clarify and allow procedure to flow better, and changes per CAR 56882 and also CAR 60557.</p> <p>Rev. 22 - DCR-10274. Added step to be consistent with other procedures. Added new LCO for dust accumulation per CAR 63656.</p>

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59	INST-FOI-17	Facility Visual Examination Operations	Rev. 19	Rev. 23	<p>Rev. 20 – DCR-9583. Incorporated the WIPP Renewal Request and Waste Acceptance Criteria changes.</p> <p>Rev. 21 - DCR-9776. Added additional IDCs to Appendix B.</p> <p>Rev. 22 - DCR-9956. Removed word “previously” as part of annual TSR update to SAC 5.2.7.</p> <p>Rev. 22 FC-1 - DCR-9981. Delete F8 function form certain sections.</p> <p>Rev. 22 FC-2 - DCR-9989. Removed Controlled Activity designator.</p> <p>Rev. 23 - DCR-10094. Incorporate FC-1 and FC-2 (DCRs-9989, 9981). Deleted IDC RF-095 from Unknowns to provide consistency with RPT-ESH-014.</p>
60	INST-FOI-20	Supercompactor and Post-Compaction Operations	Rev. 30 FC-2	Rev. 34	<p>Rev. 31 – DCR 9135. Incorporated changes from field change DCR-9235 and 9251.</p> <p>Rev. 31 FC-1 – DCR-9726. Added bag out step for when liquids are not present and clarification to Step 4.6.3.</p> <p>Rev. 31 FC-2 – DCR-9850. Incorporated new IDC changes to support SDCR-2255.</p> <p>Rev. 32 – DCR-9622. Due to the rewrite of this procedure, FC-1 (dcr-9726) no longer applies. Incorporated FC-2 IDC changes per DCR-9850. Rewrite to update per the evolved process with WTS and ICS downloads, and added a new section for introduction of non-fissile maintenance items/tools into the Supercompactor glovebox.</p> <p>Rev. 33 – DCR-9922. Implement SAC and LCO wording changes from TSR annual update.</p> <p>Rev. 33 TFC-1 – DCR-10033. Implement 238Pu controls.</p> <p>Rev. 33 FC-1 - DCR-10128. Made TFC-1 permanent (DCR-10033).</p> <p>Rev. 34 – DCR-10032. Incorporated FC-1 (DCR-10033). Changed to Controlled Activity (AI 60418). Added drum inspection criteria, removed reference to INST-OI-23, relocated steps to abnormal section, and simplified squeezant handling during crit cleanout.</p> <p>Rev. 34 FC-1 – DCR-10272. Provide means to move maintenance Item into supercompactor Glovebox.</p>