



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



July 30, 2008

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

Subject: Notification of Recertification Audit A-08-19 (B6, QA and NDA)  
of the Advanced Mixed Waste Treatment Project Transuranic  
Waste Characterization and Certification Program

Dear Mr. Zappe:

Enclosed is the audit plan for Carlsbad Field Office (CBFO) recertification audit A-08-19, of the Advanced Mixed Waste Treatment Project (AMWTP) Transuranic (TRU) Waste Characterization and Certification Program. The audit is to be conducted as required by the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit, Section B4-3f. The audit will be conducted at the Idaho National Laboratory (INL) near Idaho Falls, Idaho, September 8-12, 2008.

The audit will determine the adequacy, implementation, and effectiveness of the AMWTP characterization and certification activities related to contact-handled Summary Category Groups (SCGs) S3000 (homogeneous solids), SCG S5000 (debris), and the core sampling activities for SCG S3000 and SCG S4000 (soils/gravel) wastes. In addition, the adequacy, implementation, and effectiveness of the AMWTP nondestructive assay program and the overall Quality Assurance Program will be evaluated. The audit plan identifies the audit team members and the planned audit scope, as required by Section B6-3 of the Permit.

Please contact the CBFO Quality Assurance Manager, Ava Holland, at (575) 234-7423, should you have any questions concerning this notification.

Sincerely,

David C. Moody  
Manager

Enclosure



Mr. Steve Zappe

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July 30, 2008

cc: w/enclosure

A. Holland, CBFO

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WIPP Operating Record, MS: 452-09

CBFO QA File

CBFO M&RC

\*ED denotes electronic distribution

## CARLSBAD FIELD OFFICE CERTIFICATION AUDIT PLAN

**Audit Number:** A-08-19

**Organization:** Advanced Mixed Waste Treatment Project (AMWTP)

**Organizations to be Notified:** Bechtel BWXT Idaho, LLC (BBWI)  
New Mexico Environment Department  
Environmental Protection Agency  
Defense Nuclear Facilities Safety Board

**Date and Location:** September 8 – 12, 2008  
Idaho Falls, Idaho

**Audit Team:**

Earl Bradford	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Lea Chism	Auditor, CBFO
Janice Trone	Auditor, Sandia National Laboratory
Berry Pace	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Prissy Martinez	Auditor, CTAC
Nick Wade	Auditor, CTAC
Paul Gomez	Auditor, CTAC
Dick Blauvelt	Technical Specialist, CTAC
Kirk Kirkes	Technical Specialist-Auditor, CTAC
Rhett Bradford	Technical Specialist, CTAC
Wayne Ledford	Technical Specialist, CTAC
BJ Verret	Technical Specialist, CTAC
Jim Oliver	Technical Specialist, CTAC

### Audit Scope:

This recertification audit will evaluate the continued adequacy, implementation, and effectiveness of the Quality Assurance (QA) Program and the technical processes related to the AMWTP transuranic (TRU) waste characterization and certification activities. The QA Program and technical activities implemented to comply with the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) for Summary Category Groups (SCGs) S3000 (homogeneous solids waste) and SCG S5000 (debris waste) will be evaluated. Sampling processes for SCG S3000 and SCG S4000 (soils/gravel) will also be evaluated. In addition, this audit will evaluate the sustained effectiveness of corrective actions for previous concerns identified during previous audits and surveillances. The specific processes to be audited are listed below under Activities to be Audited.

See the attachment, Processes and Equipment to be Reviewed During Audit A-08-19 of the AMWTP for additional information.

**Activities to be Audited:**

The following general areas from Attachment B6, Section B6-3 of the HWFP will be audited:

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

The following CBFO quality assurance elements will be audited:

- Organization/QA Program Implementation
- Personnel Qualification and Training
- Quality Improvement (nonconformance reporting and corrective action)
- Documents and Records
- Work Processes
- Procurement
- Inspection and Testing (Control of Measuring and Test Equipment (M&TE) for data collection)
- Audits/Assessments
- Sample Control
- Software Control

The following CBFO characterization technical elements will be audited for SCG S3000 and SCG S5000:

- Data Generation-Level and Project-Level Data Validation and Verification (V&V) (B6-1, B6-2, B6-4, B6-5 and B6-6)
- Solids Sampling (SS) (B6-1 and B6-2)
- Acceptable Knowledge (AK) (B6-1 and B6-3)
- Headspace Gas (HSG) Sampling and Analysis (B6-1, B6-3 and B6-4)
- Real-Time Radiography (RTR) (B6-1, B6-3 and B6-5)
- Visual Examination (VE) (B6-1, B6-3 and B6-6)
- Performance Demonstration Program (PDP) (B6-1 and B6-4)

The following CBFO certification activities will be evaluated:

- Nondestructive Assay (NDA)
- Waste Stream Profile Form (WSPF) Preparation (B6-1)
- WIPP Waste Information System (WWIS) Data Entry (B6-1 & B6-3)

**Governing Documents/Requirements:**

Adequacy of AMWTP documents will be based on the current revisions of the following documents:

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

Waste Analysis Plan (WAP), Attachment B6 of the RCRA Part B Permit

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

Programmatic and technical checklists will be developed from the active revision of the following documents:

*AMWTP Certification Plan for INEEL Contact-Handled Transuranic Waste, MP-TRUW-8.1*

*AMWTP Quality Assurance Project Plan (QAPjP), MP-TRUW-8.2*

Related AMWTP quality assurance and technical implementing procedures

**Schedule of Audit Activities:**

A pre-audit conference is scheduled for Monday, September 8, at 4:00 p.m. at the in-town offices of the AMWTP.

Audit team caucuses will be held at 5:00 p.m., Tuesday through Thursday, September 7-9, 2008.

The audit team leader will meet with AMWTP management to discuss audit concerns and audit progress at 8:30 a.m., Wednesday and Thursday, September 8-9, 2008.

A post-audit conference is scheduled for Friday, September 12, 2008, at 10:00 a.m. at the in-town offices of the AMWTP.

Approved By:   
A. Earl Bradford, Audit Team Leader

Date: July 21, 2008

Approved By:   
Ava L. Holland, CBFO QA Manager

Date: 7/28/08

**Processes and Equipment to be Reviewed During Audit A-08-19 of the AMWTP**

WWIS Equipment Number	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
<b>NEW PROCESSES OR EQUIPMENT</b>				
None: This audit is to recertify Summary Category Groups (SCGs) S3000 Homogeneous Solids and S5000 Debris Waste.				
<b>PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT</b>				
The following processes and equipment were evaluated during CBFO Audit A-07-14.				
<b>Headspace Gas (HSG)</b>				
9HG4	Procedure – INST-OI-43 Description – CTI Headspace Gas Sampling System – Unit 001	Solids (S3000) Debris (S5000)	YES	N/A
<b>Solids Sampling</b>				
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) and Soils/Gravel (S4000)	YES	N/A
<b>Nondestructive Assay (NDA)</b>				
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

WWIS Equipment Number	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
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
<b>Nondestructive Examination (NDE)</b>				
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
<b>Visual Examination</b>				
9VE2	Visual Examination Procedure – INST-OI-34 Description – Visual Examination (in lieu of RTR) (VEC)	Solids (S3000) Debris (S5000)	YES	YES

WWIS Equipment Number	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
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
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



WWIS Equipment Number	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
9VE9	Visual Examination Procedure – INST-OI-34 Description – Box Line Visual Examination (VEB) – Box to drum repackaging	Solids (S3000) 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
<b>DEACTIVATED PROCESSES OR EQUIPMENT</b>				
None: This audit is to recertify Summary Category Groups (SCGs) S3000 Homogeneous Solids and S5000 Debris Waste.				
The following processes and equipment has not been used since the previous recertification audit A-07-14.				
<b>HEADSPACE GAS PROCESSES AND EQUIPMENT</b>				
9HG5	Procedure – INST-OI-43 Description – CTI Headspace Gas Sampling System – Unit 002	Solids (S3000) Debris (S5000)	YES	N/A
9HG6	Procedure – INST-OI-43 Description – CTI Headspace Gas Sampling System – Unit 004	Solids (S3000) Debris (S5000)	YES	N/A

WWIS Equipment Number	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
9HG7	Procedure – INST-OI-43 Description – CTI Headspace Gas Sampling System – Unit 005	Solids (S3000) Debris (S5000)	YES	N/A