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,

[Signature]

David C. Moody
Manager

Enclosure
cc: w/enclosure
A. Holland, CBFO  *ED
D. Miehls, CBFO  ED
M. Navarrete, CBFO  ED
N. Castaneda, CBFO  ED
D. Gadbury, CBFO  ED
C. Fesmire, CBFO  ED
S. Holmes, NMED  ED
E. Bradford, CTAC  ED
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)  
Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)

Lea Chism  
Auditor, CBFO  
Auditor, Sandia National Laboratory

Janice Trone  
Auditor, CTAC  
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Dick Blauvelt  
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Technical Specialist, CTAC

Kirk Kirkes  
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Rhett Bradford  
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Wayne Ledford  
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Technical Specialist, CTAC

BJ Verret  
Technical Specialist, CTAC  
Technical Specialist, CTAC

Jim Oliver  
Technical Specialist, CTAC  
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:
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 (QAPp), 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: [Signature]  Date: [Signature]  Date:

A. Earl Bradford, Audit Team Leader

Approved By: [Signature]  Date: [Signature]  Date:

Ava L. Holland, CBFO QA Manager
Processes and Equipment to be Reviewed During Audit A-08-19 of the AMWTP

<table>
<thead>
<tr>
<th>WWIS Equipment Number</th>
<th>Process/Equipment Description</th>
<th>Applicable to the Following Waste Streams/Groups of Waste Streams</th>
<th>Currently Approved by NMED</th>
<th>Currently Approved by EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEW PROCESSES OR EQUIPMENT</strong></td>
<td></td>
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<tr>
<td>None: This audit is to recertify Summary Category Groups (SCGs) S3000 Homogeneous Solids and S5000 Debris Waste.</td>
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<tr>
<td><strong>PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT</strong></td>
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</tr>
<tr>
<td>The following processes and equipment were evaluated during CBFO Audit A-07-14.</td>
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</tr>
</tbody>
</table>

**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  
Description – Drum Coring and Sample Collection System | Solids (S3000) and  
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** |
<table>
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<tbody>
<tr>
<td>9DA3</td>
<td>Procedure – INST-FOI-01&lt;br&gt;Description – Canberra Drum Assay System Z-390-100</td>
<td>Debris (S5000)</td>
<td>N/A</td>
<td>Yes</td>
</tr>
<tr>
<td>9DA4</td>
<td>Procedure – INST-FOI-01&lt;br&gt;Description – Canberra Drum Assay System Z-390-101</td>
<td>Debris (S5000)</td>
<td>N/A</td>
<td>Yes</td>
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<td></td>
<td><strong>Nondestructive Examination (NDE)</strong></td>
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<tr>
<td>9RR1</td>
<td>Procedure – INST-OI-12 and INST-OI-81&lt;br&gt;Description – Real-Time Radiography (RTR) System</td>
<td>Solids (S3000)&lt;br&gt;Debris (S5000)</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>9RR2</td>
<td>Procedure – INST-OI-12 and INST-OI-81&lt;br&gt;Description – Real-Time Radiography System</td>
<td>Solids (S3000)&lt;br&gt;Debris (S5000)</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td></td>
<td><strong>Visual Examination</strong></td>
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<td>9VE2</td>
<td>Visual Examination&lt;br&gt;Procedure – INST-OI-34&lt;br&gt;Description – Visual Examination (in lieu of RTR) (VEC)</td>
<td>Solids (S3000)&lt;br&gt;Debris (S5000)</td>
<td>YES</td>
<td>YES</td>
</tr>
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<td>WWIS Equipment Number</td>
<td>Process/Equipment Description</td>
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</tbody>
</table>
| 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 |
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| 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                        |

**DEACTIVATED PROCESSES OR EQUIPMENT**

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.

**HEADSPACE GAS PROCESSES AND EQUIPMENT**

| WWIS Equipment Number | Procedure – INST-OI-43  
Description – CTI Headspace Gas Sampling System – Unit 002 | Applicable to the Following Waste Streams/Groups of Waste Streams | Currently Approved by NMED | Currently Approved by EPA |
|-----------------------|----------------------------------------------------------------|----------------------------------------------------------------|-----------------------------|---------------------------|
| 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                        |
<table>
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<tr>
<td>9HG7</td>
<td>Procedure – INST-OI-43</td>
<td>Solids (S3000) Debris (S5000)</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Description – CTI Headspace Gas Sampling System – Unit 005</td>
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</table>