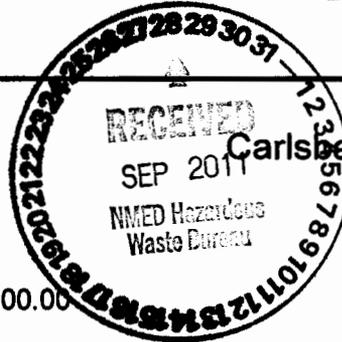


United States Government

Department of Energy **ENTERED**

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221



DATE: SEP 28 2011
REPLY TO
ATTN OF: CBFO:OQA:CGF:ANC:11-1924:UFC 2300.00

SUBJECT: Recertification Audit A-12-03 of the AMWTP Transuranic Waste Characterization and Certification Program

TO: William (Bill) Lattin, DOE-ID

Please be advised that an audit team from the Carlsbad Field Office (CBFO) will conduct recertification audit A-12-03 of the Advanced Mixed Waste Treatment Project (AMWTP) at the Idaho National Laboratory (INL) near Idaho Falls, Idaho, November 1-3, 2011. The AMWTP characterization activities for contact-handled Summary Category Groups S3000 (homogeneous solids) and S5000 (debris waste) will be evaluated during the audit. The audit will be conducted in accordance with the attached audit plan. Representatives from the CBFO and the New Mexico Environment Department may be present to observe the audit. In addition, the U.S. Environmental Protection Agency may conduct an independent inspection of the AMWTP and/or an inspection of the CBFO audit process.

Your representatives are requested to coordinate with the audit team to develop the necessary documentation for the audit team to gain access to the AMWTP facilities, conduct the audit, and have appropriate access to necessary documentation and records. Please provide meeting rooms for the entrance and exit meetings, and working rooms for the audit team and observers. The audit team will need a full set of documentation applicable to the AMWTP characterization activities for WIPP, including procedures.

If you have any questions concerning this notification, please contact me at (575) 234-7548.

Courtland G. Fesmire,
Quality Assurance Engineer

Attachment

cc: w/attachment

- | | | | |
|------------------------|------|--------------------------------|----|
| R. Unger, CBFO | * ED | S. Ghose, EPA | ED |
| J. R. Stroble, CBFO | ED | R. Lee, EPA | ED |
| H. Budweg, CBFO | ED | J. Kieling, NMED | ED |
| N. Castaneda, CBFO | ED | T. Hall, NMED | ED |
| J. Cooper, DOE-ID | ED | S. Holmes, NMED | ED |
| J. Wells, DOE-ID | ED | T. Kesterson, DOE OB WIPP NMED | ED |
| T. Jenkins, DOE-ID | ED | D. Winters, DNFSB | ED |
| G. Tedford, AMWTP | ED | P. Gilbert, LANL-CO | ED |
| E. Schweinsberg, AMWTP | ED | G. Lyshik, LANL-CO | ED |
| E. Dumas, AMWTP | ED | P. Martinez, CTAC | ED |
| T. Fallon, AMWTP | ED | M. Mager, CTAC | ED |
| T. Peake, EPA | ED | WIPP Operating Record | ED |
| M. Eagle, EPA | ED | CBFO QA File | |
| E. Feltcorn, EPA | ED | CBFO M&RC | |
| R. Joglekar, EPA | ED | *ED denotes electronic distrib | |



CARLSBAD FIELD OFFICE CERTIFICATION AUDIT PLAN

Audit Number: A-12-03

Organization: Advanced Mixed Waste Treatment Project (AMWTP)

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

Date and Location: November 1 – 3, 2011
Idaho Falls, Idaho

Audit Team:

Courtland Fesmire	CBFO Quality Assurance 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
Jim Oliver	Technical Specialist, CTAC

Audit Scope:

The audit team will evaluate the continued adequacy, implementation, and effectiveness of the AMWTP technical and quality assurance (QA) activities performed for characterizing contact-handled (CH) transuranic (TRU) waste. The QA and technical activities implemented at AMWTP for Summary Category Groups (SCGs) S3000 (homogeneous solids waste) and SCG S5000 (debris waste) will be audited to requirements in the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the CBFO Quality Assurance Program Document (QAPD), and the Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC). In addition, the audit team will evaluate the Visual Examination process for characterizing CH SCG S3000 homogeneous solids waste.

The specific processes to be audited are identified below in the "Activities to be Audited" section and on the attached list, "Processes and Equipment to be Reviewed During Audit A-12-03."

Activities to be Audited:

The following general areas from Attachment C6, Section C6-3 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 QA 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
- Container Management
- Software Control
- Load Management

The following waste characterization technical elements will be audited:

- 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)
- Nondestructive Assay (NDA)
- WIPP Waste Information System/Waste Data System (WWIS/WDS)

Governing Documents/Requirements:

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

- *Quality Assurance Program Document (QAPD)*, DOE/CBFO-94-1012
- Hazardous Waste Facility Permit, Waste Isolation Pilot Plant EPA No. NM4890139088-TSDF, the New Mexico Environment Department (HWFP)
- *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, DOE/WIPP-02-3122

Programmatic and technical checklists will be developed from the current revisions of the following documents:

- *AMWTP Certification Plan for INL 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 8:00 a.m., Tuesday, November 1, 2011, at the in-town offices of the AMWTP.

Audit team caucuses will be held at 4:00 p.m., Tuesday through Thursday, November 1 through 3, 2011, at the in-town offices of the AMWTP.

The audit team leader will meet with AMWTP management to discuss audit concerns and audit progress at 8:30 a.m., Wednesday and Thursday, November 2 and 3, 2011, at the in-town offices of the AMWTP.

A post-audit conference is scheduled for 4:00 p.m., Thursday, November 3, 2011, at the in-town offices of the AMWTP.

Approved By: 

Porf Martinez, CTAC
Audit Team Leader

Date: 9/14/2011

Approved By: 

Randy Unger, CBFO
Director, Office of Quality Assurance

Date: 26 Sep 11.

Processes and Equipment to be Reviewed During Audit A-12-03

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
NEW PROCESSES OR EQUIPMENT					
TBD	N/A	Sludge Visual Examination Closure (VSC) – S3000 to a new container Method described in INST-FOI-22	N/A	Waste Tracking System (WTS)	N/A
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT					
9HG4	Z-221-001-A	Consonant Technology Inc. (CTI) – Gas Chromatography/Mass Spectrometry (GC/MS) System PDP ID # CTI-HGAS-A-001 Method described in procedure INST-OI-43	Agilent 5973N Network Mass Selective Detector – Unit 001	HGAS Software, Version 1.23	N/A
9DA1	Z-211-102	Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums DAS –102 - PDP Registration # AM01/AMN1 Method described in procedure INST-OI-14	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	NDA 2000 Canberra's Genie 2000 Multi-Group Analysis (MGA) Multi-Group Analysis-Uranium (MGA-U)	The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054 The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.

Processes and Equipment to be Reviewed During Audit A-12-03

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DA2	Z-211-103	<p>Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums</p> <p>DAS-103 - PDP Registration # AM02/AMN2</p> <p>Method described in procedure INST-OI-14</p>	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	<p>NDA 2000</p> <p>Canberra's Genie 2000</p> <p>Multi-Group Analysis (MGA)</p> <p>Multi-Group Analysis- Uranium (MGA-U)</p>	<p>The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054</p> <p>The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, "Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems", Revision 1, July 30, 2003.</p>
9DA3	Z-390-100	<p>Canberra Integrated Waste Assay System (IWAS) - DAS3 – 55 gallon drums</p> <p>DAS-100 – PDP Registration # AM03/AMN3</p> <p>Method described in INST-FOI-01</p>	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	<p>NDA 2000</p> <p>Canberra's Genie 2000</p> <p>Multi-Group Analysis (MGA)</p> <p>Multi-Group Analysis- Uranium (MGA-U)</p>	<p>The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054</p> <p>The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.</p>

Processes and Equipment to be Reviewed During Audit A-12-03

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DA4	Z-390-101	Canberra Integrated Waste Assay System (IWAS) - DAS4 – 55 gallon drums DAS-101 – PDP Registration # AM04/AMN4 Method described in INST-FOI-01	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	NDA 2000 Canberra's Genie 2000 Multi-Group Analysis (MGA) Multi-Group Analysis- Uranium (MGA-U)	The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054 The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.
9RR1	Z-213-101	Real Time Radiography System – 55 gallon drums, 83 gallon drums and SWBs Method described in INST-OI-12 and INST-OI-81	RTR System	Waste Tracking System (WTS)	N/A
9RR2	Z-213-106	Real Time Radiography System – 55 gallon drums, 83 gallon drums and SWBs Method described in procedure INST-OI-12 and INST-OI-81	RTR System	Waste Tracking System (WTS)	N/A

Processes and Equipment to be Reviewed During Audit A-12-03

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DC1	Z-250-802	Drum Coring and Sample Collection Glove Box Method – BN-MDC Method described in procedure INST-OI-16, INST-OI-73, and INST-OI-75	Drum Coring and Sample Collection Glove Box	Waste Tracking System (WTS)	N/A
9VE2	N/A	Visual Examination (in lieu of RTR) (VEC) Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A
9VE3	N/A	Newly Generated Waste Visual Examination Closure (VNC) Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A
9VE5	N/A	Visual Examination (in lieu of RTR) (VEC) Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE6	N/A	Newly Generated Waste Visual Examination Closure (VNC) Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE7	N/A	Box Line Visual Examination (VEB) – Box to drum repackaging Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE8	N/A	Box Line Visual Examination (VEB) – Drum to new drum repackaging Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE10	N/A	Box Line Visual Examination (VEB) – Drum to new drum repackaging Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A

Processes and Equipment to be Reviewed During Audit A-12-03

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
N/A	N/A	Load Management Method described in MP-TRUW-8.13	N/A	N/A	N/A
N/A	N/A	Acceptable Knowledge Method described in MP-TRUW-8.11, MP-TRUW-8.13 & MP-TRUW-8.14	N/A	N/A	N/A
N/A	N/A	Data Generation and Project Level Validation & Verification (V&V) Method described in MP-TRUW-8.9	N/A	N/A	N/A