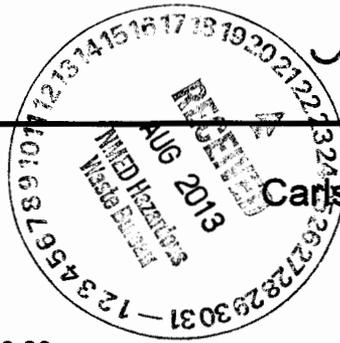


United States Government

Department of Energy

memorandum

 Carlsbad Field Office
 Carlsbad, New Mexico 88221


DATE: August 22, 2013

REPLY TO
ATTN OF: CBFO:QQA:MPN:MAG:13-2020:UFC 2300.00

SUBJECT: Notification of Recertification Audit A-14-01 of the AMWTP Transuranic Waste Characterization and Certification Program

TO: Benjamine B. Roberts, DOE-ID

Please be advised that an audit team from the U.S. Department of Energy - Carlsbad Field Office (CBFO) will conduct Recertification Audit A-14-01 of the Advanced Mixed Waste Treatment Project (AMWTP) at the Energy Drive Facility in Idaho Falls, Idaho, and at the Idaho National Laboratory near Idaho Falls on October 1-3, 2013.

The AMWTP characterization activities for contact-handled Summary Category Group (SCG) S3000 homogeneous solids waste and SCG 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 (NMED) may be present to observe the audit. In addition, the U.S. Environmental Protection Agency (EPA) 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 the Waste Isolation Pilot Plant (WIPP), including procedures.

If you have any questions concerning this notification, please contact me at (575) 234-7483.

Martin P. Navarrete
Senior Quality Assurance Specialist

Attachment

cc: w/attachment

O. Vincent, CBFO	* ED	S. Ghose, EPA	ED
J. R. Stroble, CBFO	ED	R. Lee, EPA	ED
D. Miehl, CBFO	ED	J. Kielling, NMED	ED
M. Pinzel, CBFO	ED	T. Kliphuis, NMED	ED
N. Castaneda, CBFO	ED	S. Holmes, NMED	ED
J. Cooper, DOE-ID	ED	R. Maestas, NMED	ED
J. Wells, DOE-ID	ED	C. Smith, NMED	ED
T. Jenkins, DOE-ID	ED	J. Harvill, CTAC	ED
D. Haar, AMWTP	ED	R. Allen, CTAC	ED
G. Byram, AMWTP	ED	C. Castillo, CTAC	ED
G. Tedford, AMWTP	ED	P. Martinez, CTAC	ED
E. Schweinsberg, AMWTP	ED	D. Harvill, CTAC	ED
A. Morse, AMWTP	ED	G. White, CTAC	ED
T. Peake, EPA	ED	Site Documents	ED
L. Bender, EPA	ED	WIPP Operating Record	ED
E. Feltcorn, EPA	FD	CBFO QA File	
R. Joglekar, EPA		CBFO M&RC	

*ED denotes electronic distribution

130826



CARLSBAD FIELD OFFICE AUDIT PLAN

Audit Number: A-14-01

Organization: Advanced Mixed Waste Treatment Project (AMWTP)

Organizations to be Notified: Bechtel BWXT Idaho, LLC
Idaho Treatment Group
New Mexico Environment Department
U.S. Environmental Protection Agency
Defense Nuclear Facilities Safety Board

Date and Location: October 1–3, 2013
Idaho National Laboratory (INL), Idaho Falls, Idaho and the
AMWTP Energy Drive Facility, Idaho Falls, Idaho

Audit Team:

Martin Navarrete	Management Representative, Carlsbad Field Office (CBFO), Office of Quality Assurance
Cindi Castillo	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Randall Allen	Auditor, CTAC
Tammy Bowden	Auditor, CTAC
Harley Kirschenmann	Auditor, CTAC
Greg Knox	Auditor, CTAC
Katie Martin	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Berry Pace	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Jim Schuetz	Auditor, CTAC
Roger Vawter	Auditor, CTAC
Dick Blauvelt	Technical Specialist, CTAC
Rhett Bradford	Technical Specialist, CTAC
Paul Gomez	Technical Specialist, CTAC
Priscilla Martinez	Technical Specialist, CTAC
Jim Oliver	Technical Specialist, CTAC
B.J. Verret	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 transuranic waste. The QA and technical activities implemented at AMWTP for Summary Category Group (SCG) 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*, and the *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*.

The specific processes to be audited are identified below and on the attached list entitled: *Processes and Equipment to be Reviewed During Audit A-14-01*.

Activities to be Audited:

The following general areas from Attachment C6, Section C6-3, of the WIPP 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 processes 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 measurement and test equipment for data collection)
- Audits/Assessments
- Container Management
- Software Control

The following waste characterization technical elements will be audited:

- Acceptable Knowledge, including waste certification (i.e., Waste Stream Profile Forms)
- Project-Level Data Validation and Verification
- Solids Sampling
- Headspace Gas Sampling and Analysis
- Real-time Radiography
- Visual Examination
- Nondestructive Assay
- WIPP Waste Information System/Waste Data System
- Load Management

Governing Documents/Requirements:

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

- *CBFO Quality Assurance Program Document, DOE/CBFO-94-1012*

- Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF
- *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, 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*, MP-TRUW-8.2
- Related AMWTP QA and technical implementing procedures

Schedule of Audit Activities:

A pre-audit conference is scheduled for 8:30 a.m., Tuesday, October 1, 2013, at the AMWTP Energy Drive Facility in Idaho Falls, Idaho.

Audit team caucuses will be held at 3:30 p.m., Tuesday and Wednesday, October 1 and 2, 2013, and at 1:00 p.m. on Thursday, October 3, 2013.

The audit team leader will meet with AMWTP management to discuss audit concerns and audit progress at 8:30 a.m., Tuesday through Thursday, October 1-3, 2013.

A post-audit conference is scheduled for 3:00 p.m., Thursday, October 3, 2013.

All meeting locations will be identified in the daily audit schedule.

Approved By: Cindi Castillo
Cindi Castillo, CTAC
Audit Team Leader

Date: 8/15/13

Approved By: D. J. Mills
Director, CBFO Office of Quality Assurance

Date: 8-20-13

Processes and Equipment to be Reviewed During Audit A-14-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
HEADSPACE GAS (for data collected prior to the Class 2 PMR dated March 13, 2013)					
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
NONDESTRUCTIVE ASSAY					
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) 	<ul style="list-style-type: none"> • NDA 2000 • Canberra's Genie 2000 • Multi-Group Analysis (MGA) • Multi-Group Analysis-Uranium (MGA-U) 	<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>
9DA2	Z-211-103	Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums DAS-103 - PDP Registration # AM02/AMN2 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) 	<ul style="list-style-type: none"> • NDA 2000 • Canberra's Genie 2000 • Multi-Group Analysis (MGA) • Multi-Group Analysis-Uranium (MGA-U) 	<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-14-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DA3	Z-390-100	Canberra Integrated Waste Assay System (IWAS) - DAS3 – 55-gallon drums DAS-100 – PDP Registration # AM03/AMN3 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) 	<ul style="list-style-type: none"> • NDA 2000 • Canberra's Genie 2000 • Multi-Group Analysis (MGA) • Multi-Group Analysis-Uranium (MGA-U) 	<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>
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) 	<ul style="list-style-type: none"> • NDA 2000 • Canberra's Genie 2000 • Multi-Group Analysis (MGA) • Multi-Group Analysis-Uranium (MGA-U) 	<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>
NONDESTRUCTIVE EXAMINATION					
9RR1	Z-213-101	Real Time Radiography (RTR) System Method described in INST-OI-12	RTR System	Waste Tracking System (WTS)	N/A

Processes and Equipment to be Reviewed During Audit A-14-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9RR2	Z-213-106	Real Time Radiography (RTR) System Method described in procedure INST-OI-12	RTR System	Waste Tracking System (WTS)	N/A
SOLIDS (for data collected prior to the Class 2 PMR dated March 13, 2013)					
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
VISUAL EXAMINATION					
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

Processes and Equipment to be Reviewed During Audit A-14-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
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

AMWTP DEACTIVATED EQUIPMENT LIST

WIPP #	Site Equipment #	Equipment Description	Date Deactivated
HEADSPACE GAS			
9HG1	Z-220-001A	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit A	8/6/06
9HG2	Z-220-001B	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit B	8/6/06
9HG3	Z-220-001C	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit C	8/6/06
9HG7	Z-221-001D	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	Used for spare parts
9HG6	Z-221-001C	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	4/14/08
9HG5	Z-221-001B	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	4/14/08
VISUAL EXAMINATION			
9VE9	N/A	Box Line Visual Examination (VEB) – Box to Drum Repackaging	Expired in WDS February 23, 2011
9VE11	N/A	Sludge Visual Examination Closure (VSC) – S3000 to a new container Method described in INST-FOI-22	2/6/12