



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
SEP 13 2012



ENTERED



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

Subject: Transmittal of the Hazardous Waste Facility Permit Attachment C6 Audit Plan for Audit A-13-01 of the AMWTP Transuranic Waste Characterization and Certification Program

Dear Mr. Kieling:

This letter transmits the audit plan for the subject Carlsbad Field Office recertification audit to be conducted at the Idaho National Laboratory October 15-18, 2012 for work performed by the Advanced Mixed Waste Treatment Project (AMWTP), as required by the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Section C4-3g. The audit plan identifies the audit team members as required by Section C6-3 of the Permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. Randy Unger, Director of the Office of Quality Assurance for the Carlsbad Field Office, at (575) 234-7065.

Sincerely,


Jose R. Franco, Manager
Carlsbad Field Office

Enclosure



Mr. John E. Kieling

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SEP 13 2012

cc: w/enclosure

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WIPP Operating Record ED

CBFO QA File

CBFO M&RC

*ED denotes electronic distribution

CARLSBAD FIELD OFFICE CERTIFICATION AUDIT PLAN

Audit Number: A-13-01

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: October 15 – 18, 2012
Idaho National Laboratory (INL) near Idaho Falls, Idaho

Audit Team:

Courtland Fesmire	CBFO Quality Assurance Management Representative
Porf Martinez	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Tammy Bowden	Auditor, CTAC
Cindi Castillo	Auditor, CTAC
Greg Knox	Auditor, CTAC
Berry Pace	Auditor, CTAC
Roger Vawter	Auditor, CTAC
Norm Frank	Auditor, CTAC
Charlie Riggs	Auditor, CTAC
Earl Bradford	Auditor, CTAC
Randall Allen	Auditor, CTAC
Priscilla Martinez	Auditor, CTAC
Paul Gomez	Technical Specialist, CTAC
Dick Blauvelt	Technical Specialist, CTAC
B.J. 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)*.

The specific processes to be audited are identified below and on the attached list, *Processes and Equipment to be Reviewed During Audit A-13-01*.

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

The following waste characterization technical elements will be audited:

- Acceptable Knowledge (AK), including waste certification (i.e., Waste Stream Profile Forms)
- Load Management
- Project-Level Data Validation and Verification (V&V)
- Visual Examination (VE)
- Solids Sampling (SS)
- Headspace Gas Sampling and Analysis (HSG S&A)
- Nondestructive Assay (NDA)
- Real-time Radiography (RTR)
- 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:

- *CBFO Quality Assurance Program Document (QAPD)*, DOE/CBFO-94-1012
- Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF
- *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., Monday, October 15, 2012, at the INL.

Audit team caucuses will be held at 3:30 p.m., Monday through Wednesday, October 15 through 17, 2012, and at 1:00 p.m. on Thursday, October 18, 2012.

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 16 through 18, 2012.

A post-audit conference is scheduled for 3:00 p.m., Thursday, October 18, 2012.

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

Approved By: _____



Porf Martinez, CTAC
Audit Team Leader

Date: _____

9/5/12

Approved By: _____



Randy Unger, CBFO
Director, Office of Quality Assurance

Date: _____

12 Aug 12

Processes and Equipment to be Reviewed During Audit A-13-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
NEW PROCESSES OR EQUIPMENT					
NONE					
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.
9DA2	Z-211-103	Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums	<ul style="list-style-type: none"> > Broad Energy Germanium (BEGe) gamma detectors > 122 helium-3 tubes used in 	NDA 2000 Canberra's Genie	The calibration of IWAS system was verified and documented in the site

Processes and Equipment to be Reviewed During Audit A-13-01

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
		DAS-103 - PDP Registration # AM02/AMN2 Method described in procedure INST-OI-14	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)	2000 Multi-Group Analysis (MGA) Multi-Group Analysis-Uranium (MGA-U)	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.
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	> 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-13-01

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) 	<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>
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-13-01					
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-13-01

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, and 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
N/A	N/A	WIPP Waste Information System/Waste Data System (WWIS/WDS) Method described in MP-TRUW-8.5	N/A	N/A	N/A