DOE F 1325.8

United States Government **Department of Energy**

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: JUN 0 6 2005

REPLY TO ATTN OF: CBFO:QA:MPN:VW:05-0985:UFC:2300

SUBJECT: Revised Audit Plan for Audit (A-05-14) Hanford Recertification of the TRU Waste Characterization, Certification and Transportation Programs

TO: Mark French, DOE-RL

Please be advised that a team of auditors and technical specialists from the Carlsbad Field Office (CBFO) will conduct an audit at the Hanford Site in Richland, Washington, June 20-24, 2005. The audit will be conducted in accordance with the attached audit plan. The purpose of the audit is to determine whether TRU waste characterization activities should continue to be certified by DOE/CBFO for the WIPP project. See the attached audit plan for details. Representatives from DOE/CBFO, and the US Environmental Protection Agency (EPA), may be present to observe the audit process.

Your representatives are requested to coordinate with the audit team to develop the necessary documentation for team access to Hanford facilties, arrange for appropriate space to conduct meetings, provide cognizant personnel to support the audit, and provide the audit meeting/working rooms for the audit team and the EPA inspectors, and a full set of documentation applicable to Hanford work for the WIPP including the applicable procedures.

If you have any questions or comments concerning the audit, please contact me at (505) 234-7483.

FOR

Martin P. Navarrete
Senior Quality Assurance Specialist

Attachment

RECEIVED

050606

cc: w/attachment

T. Harms, DOE-HQ	*ED
K. Watson, CBFO	ED
A. Holland, CBFO	ED
D. Miehls, CBFO	ED
G. Higgins, DOE-RL	ED
M. Eagle, EPA	ED
E. Feltcorn, EPA	ED
R. Joglekar, EPA	ED
D. Winters, DNFSB	ED
D. DeRosa, FH	ED
R. Dunn, FH	ED
M. Horhota, FH	ED
R. Raaz, WTS	ED
P. Rodriguez, CTAC	ED
WIPP Operating Record	
CBFO QA Files	
CBFO M&RC	

*ED denotes Electronic Distribution

CBFO:QA:MPN:VW:05-0985:UFC:2300

CARLSBAD FIELD OFFICE AUDIT PLAN
REVISION 1

Audit Number: A-05-14

Organization to be Audited: Hanford Site

Organizations to be Notified:
Hanford Site
Environmental Protection Agency
Defense Nuclear Facilities Safety Board

Date and Location:
June 20 - 24, 2005
Richland, Washington

Audit Team:

Martin Navarrete	CBFO QA Management Representative
Pete Rodriguez	Audit Team Leader/CTAC
Earl Bradford	Auditor/CTAC
Steve Calvert	Auditor/CTAC
Porf Martinez	Auditor/CTAC
Linda Realander	Auditor-In-Training/ABW Technologies Inc.
Charlie Riggs	Auditor/CTAC
Jim Schuetz	Auditor/CTAC
Dee Scott	Auditor/CTAC
Jack Walsh	Auditor/CTAC
Jimmy Wilburn	Auditor/CTAC
Dick Blauvelt	Technical Specialist/CTAC
Jim Eidie	Technical Specialist/CTAC
Karen Gaydosh	Technical Specialist/CTAC
Kirk Kirkes	Technical Specialist/CTAC
Mavis Lin	Technical Specialist/LANL/CTAC
Dave Stuenkel	Technical Specialist/CTAC
BJ Verret	Technical Specialist/CTAC
Todd Sellmer	Technical Specialist/WTS
Joe Willis	Technical Specialist/WTS

Audit Scope: This is the annual recertification audit of the Hanford Site. The audit will evaluate the adequacy, implementation, and effectiveness of the applicable technical and quality assurance activities related to Hanford transuranic waste characterization, certification, and transportation programs. The audit will assess Hanford waste characterization processes for retrievably stored and newly generated debris (S5000) and homogeneous solids

(S3000), contact-handled waste at the Waste Receiving and Processing (WRAP) facility and or the Plutonium Finishing Plant (PFP) as applicable. In addition, the audit will evaluate the procedures and processes for assay and packaging of waste at the Plutonium Finishing Plant. The audit team will also evaluate the procedures and processes for the Super High Efficiency Neutron (Super HENC) box assay system.

Activities/Tasks to be Audited:

The following CBFO quality assurance elements will be evaluated:

Organization/QA Program Implementation
Personnel Qualification and Training
QA Grading
Documents and Records
Procurement
Control of Measuring and Test Equipment
Control of Nonconforming Items
Corrective Action
Audits/Assessments
Sample Control
Software Quality Assurance

The following CBFO Characterization technical elements will be evaluated:

Sample Design
Headspace Gas (HSG) Sampling at WRAP
HSG analysis using cryofocusing GS/MS for S3000 & S5000;
HSG sampling including gas-tight seal option for POCs and drums and side port sampling (S3000 & S5000) at WRAP;
Solid Sampling (S3000)
Chain-of-custody process for HSG SUMMAs to be sent for analysis at the INEEL;
Nondestructive Assay (NDA) – Two (2) GEA vaults at WRAP, Room 172
Calorimeter and SGSAS at PFP (S3000 & S5000);
Calorimeters at PFP (S3000 & S5000);
IPAN – two (2) systems at WRAP (S5000);
Super High Efficiency Neutron (Super HENC) box assay system HENC / Box Counter at WRAP (S5000) **(NEW)**
NDE/Real Time Radiography (RTR) - (Two RTR Units at WRAP)
Visual Examination at WRAP (S5000);
Visual Examination Technique at PFP (S3000 & S5000);
Visual Examination Technique at WRAP (S3000 & S5000);
Performance Demonstration Program (NDA & HSG);
Data Verification & Validation;

Acceptable Knowledge;
Packaging;
Inspection of Packaging;
Payload Certification;
Preparation and Loading;
Shipping;
Packaging Maintenance;
Waste Stream Profile Forms;
WIPP Waste Information System (WWIS)

Governing Documents/Requirements:

Adequacy evaluations of Hanford TWCP documents will be based on the current revisions of the following documents:

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

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

TRUPACT-II Safety Analysis Report, TRAMPAC, and the TRUPACT-II Certificate of Compliance, NRC-Docket 71-9218

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

Hanford Quality Assurance Project Plan (QAPjP) for the Transuranic Waste Certification Program, HNF-2599

Hanford Site Transuranic Waste Certification Plan (includes TRAMPAC), HNF-2600

Related Hanford technical and quality assurance implementing procedures

Schedule of Audit Activities:

A pre-audit conference is scheduled for Monday, June 20, at 4:00 p.m. in the 2420 Stevens Building conference room.

Audit team caucuses will be held at 4:30 p.m. Tuesday through Thursday in a Hanford 200 Area conference room.

The audit team will meet with the appropriate Hanford management at 8:30 a.m.

Wednesday, and Thursday in a Hanford 200 Area conference room.

A post-audit conference is scheduled for Friday, June 24, at 8:00 a.m. in the 2420 Stevens Building conference room.

Prepared By: Pete V. Rodriguez — **Date:** 5-25-05
Pete Rodriguez, Audit Team Leader

Approved By: D. J. Mills FOR — **Date:** 6-6-05
Ms. Ava L. Holland, CBFO QA Manager

Process and Equipment to be Reviewed During Audit A-05-14 of the Hanford Site

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
Headspace Gas (HSG)				
2HG1	HSG US00033159, Hewlett Packard GC/MS (7) (PDP ID – VAP#7, WC68672), – VOCs analysis Procedure LA-523-410	Debris (S5000) Solids (S3000)	YES	N/A
2HG2	HSG US00032565, Hewlett Packard GC/MS (8) (PDP ID – VAP#8, WC68671), - VOCs analysis Procedure LA-523-410	Debris (S5000) Solids (S3000)	YES	N/A
2HG3	HSG US30955595, Agilent GC/MS (6) (PDP ID – VAP#6, WC80557), - VOCs analysis Procedure LA-523-410	Debris (S5000) Solids (S3000)	YES	N/A
2HG4	HSG US43110438, Agilent GS/MC (4) PDP ID-VAP#4, - VOCs analysis Procedure LA-523-410	Debris (S5000) Solids (S3000)	YES	N/A
2MM1	HGS US10432003, Agilent 3000A Micro GC 1, Hydrogen/Methane analysis Procedure LA-523-426	Debris (S5000) Solids (S3000)	N/A	N/A
2MM2	HGS US10432004, Agilent 3000A Micro GC 2, Hydrogen/Methane analysis Procedure LA-523-426	Debris (S5000) Solids (S3000)	N/A	N/A
2MM3	HGS US10432006, Agilent 3000A Micro GC 3, Hydrogen/Methane analysis Procedure LA-523-426	Debris (S5000) Solids (S3000)	N/A	N/A
2MM4	HGS US10432005, Agilent 3000A Micro GC 4, Hydrogen/Methane analysis Procedure LA-523-426	Debris (S5000) Solids (S3000)	N/A	N/A
2MM5	HGS H3336A5019, Hewlett Packard GC 5, Hydrogen/Methane analysis Procedure LA-523-426	Debris (S5000) Solids (S3000)	N/A	N/A
Non-destructive Assay (NDA)				
2SG2	PFP Room 172 Segmented Gamma Scan Assay System (SGSAS), including: 1 coaxial detector and 1 LEGe detector Procedure ZA-948-392	Debris (S5000) Solids (S3000)	N/A	YES (*S5000 Only)

Process and Equipment to be Reviewed During Audit A-05-14 of the Hanford Site

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
2GE1	Canberra 104-ND-06-102A, Gamma Energy Assay System Unit A , (GEA-A), (PDP ID – HA01/HAG1), GEA system consists of: 4 high resolution coaxial germanium detectors to detect the main spectrum of gamma radiation, and 2 high resolution planar germanium detectors to detect the low energy gamma spectra Methods: WRP1-OP-0906, WRP1-OP-0907, WMP-350 Section 2.2	Debris (S5000)	N/A	YES
2GE2	Canberra 104-ND-06-102B, Gamma Energy Assay System Unit B (GEA-B), (PDP ID – HA02/HA-G2), GEA system consists of: array of 4 high resolution coaxial germanium detectors to detect the main spectrum of gamma radiation, and 2 high resolution planar germanium detectors to detect the low energy gamma spectra Methods: WRP1-OP-0906, WRP1-OP-0907, WMP-350, Section 2.2	Debris (S5000)	N/A	YES
2CA1	ANTECH AR-1, R-Series Calorimeter, (Endpoint & Prediction Methods) -Air-bath calorimeter- Procedure ZA-948-393	Debris (S5000)* Solids (S3000)	N/A	YES (*S5000 Only)
2CA2	ANTECH AR-5, R-Series Calorimeter, (Endpoint, Prediction & Equilibrium Methods) -Air-bath calorimeter- Procedure ZA-948-393	Debris (S5000)* Solids (S3000)	N/A	YES (*S5000 Only)
2CA4	ANTECH P-13, P-Series Calorimeter, (Endpoint, Prediction & Equilibrium Methods) -Air-bath calorimeter- Procedure ZA-948-393	Debris (S5000)* Solids (S3000)	N/A	YES (*S5000 Only)
2CA5	ANTECH P-14, P-Series Calorimeter, (Endpoint & Equilibrium Methods) -Air-bath calorimeter- Procedure ZA-948-393	Debris (S5000)* Solids (S3000)	N/A	YES (*S5000 Only)
2CA7	ANTECH Q-1, Q-Series Calorimeter, (Endpoint, Prediction & Equilibrium Methods) -Air-bath calorimeter- Procedure ZA-948-393	Debris (S5000)* Solids (S3000)	N/A	YES (*S5000 Only)
2IP1	Pajarito 104-ND-06-101A, Imaging Passive-Active Neutron System A (IPAN-A), (PDP ID – HA03/HAN1), Pajarito Scientific Corp. (now owned by BNFL) IPAN unit consists of: Shielded vault, Zetatron Neutron Generator and Multiple He^3 detector banks with Pulse Forming Networks Methods: WRP1-OP-0905, WMP-350 Section 2.2	Debris (S5000)	N/A	YES

Process and Equipment to be Reviewed During Audit A-05-14 of the Hanford Site

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by EPA
2IP2	Pajarito 104-ND-06-101B, Imaging Passive-Active Neutron System B (IPAN-B), (PDP ID – HA04/HAN2), Pajarito Scientific Corp. (now owned by BNFL) IPAN unit consists of: Shielded vault, Zetatron Neutron Generator and Multiple He^3 detector banks with Pulse Forming Networks Methods: WRP1-OP-0905, WMP-350 Section 2.2	Debris (S5000)	N/A	YES
Non-destructive Examination (NDE)				
2RR1	104-ND-06-104A, NDE-A, VJ Technology real-time radiography (RTR) unit consisting of: shielded vault, drum manipulator, 1 x-ray tube with diaphragm shutters, image intensifier, video camera and shutters, and a Linear Diode Array detector Procedures: WRP1-OP-0908,	Debris (S5000)	YES	YES
2RR2	104-ND-06-104B, NDE-B, VJ Technology real-time radiography (RTR) unit consisting of: shielded vault, drum manipulator, 1 x-ray tube with diaphragm shutters, image intensifier, video camera and shutters, and a Linear Diode Array detector Procedures: WRP1-OP-0908,	Debris (S5000)	YES	YES
NEW PROCESSES OR EQUIPMENT (NDA)				
N/A	Super High Efficiency Neutron Coincidence passive neutron box counting system (SHENC A). The system neutron counting chamber walls house arrays of He-3 tubes which act as a 4π neutron detector. The system also includes a Gamma Energy Analysis System (SGEAS) for providing measured isotopic ratios. The SGEAS consists of a single HPGe detector and a box turntable which also serves as a scale. Procedures: TRU-OP-002, WMP-350, Section 2.2	Debris (S5000)	N/A	NO