



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221
July 13, 2001



Mr. Steve Zappe, Project Leader
Hazardous Materials Bureau
New Mexico Environment Department
2905 E. Rodeo Park Drive, Bldg. E
Santa Fe, New Mexico 87505

Re: Final Audit Report for the Hanford Site (A-01-16)


Dear Mr. Zappe:

This letter transmits the Hanford Site Final Audit Report for the process being performed at the Plutonium Finishing Plant (PFP) for the use of the visual examination technique as required by Section II.C.2.c of the WIPP Hazardous Waste Facility Permit. The audit was conducted June 11-15, 2001.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with 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 fines and imprisonment for knowing violations.

If you have any questions concerning this audit report, please contact Mr. Samuel Vega at (505) 234-7423.

Sincerely,


Dr. Inés R. Triay
Manager

Enclosure



Mr. Steve Zappe

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July 13, 2001

cc: w/enclosure
C. Walker, Techlaw
M. Gerle, WTS (Operating Record)

cc: w/o enclosure
T. Harms, DOE-HQ
K. Watson, CBFO
S. Vega, CBFO
L. Chism, CBFO
T. Shrader, DOE-RL
J. Maupin, FH
P. Crane, FH
J. Kieling, NMED
J. Bearzi, NMED
R. Dinwiddie, NMED
J. Lee, WTS

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-01-16 was conducted to evaluate the adequacy, implementation, and effectiveness of the applicable technical and quality assurance activities related to the Hanford Site Transuranic (TRU) Waste Characterization activities performed at the Plutonium Finishing Plant (PFP). Hanford procedures, and the process for visual examination technique (VET) being used for characterization of waste at the PFP as applied to retrievably stored debris (S5000) and homogenous solid (S3000) waste were examined during this audit.

The audit was conducted at the Hanford Site during the week of June 11-15, 20001. The audit team concluded that the Hanford technical procedures are adequate relative to the flow down of requirements from the Waste Analysis Plan (WAP) of the Hazardous Waste Facility Permit (HWFP).

The audit team concluded that the Hanford program for the visual examination technique satisfactorily met the requirements of the WAP. The audit team also concluded that the QA program is being satisfactorily implemented. The adequacy, implementation, and effectiveness of the Hanford QA program was verified and documented during re-certification audit A-01-03, which was conducted at the same time as this audit. The audit team determined that the Hanford technical process evaluated for PFP is satisfactorily implemented and effective.

The audit team did not identify any WAP related conditions that required the issuance of a CBFO corrective action report (CAR). No WAP related isolated deficiencies requiring only remedial corrective action were identified during this audit (corrected during the audit [CDAs]). No WAP related Observations or Recommendations were offered during this audit.

2.0 SCOPE AND PURPOSE

2.1 Scope

The audit team evaluated the adequacy, implementation, and effectiveness of the technical process related to the Hanford Site Transuranic (TRU) Waste Characterization activities being performed at the Plutonium Finishing Plant (PFP). Hanford procedures, and the process for visual examination technique being used for characterization of waste at the PFP as applied to retrievably stored debris (S5000) and homogenous solid (S3000) waste were examined during this audit.

Note: The QA program was evaluated and documented during recertification audit A-01-03

The following CBFO technical characterization element was evaluated in accordance with the WAP:

Visual Examination Technique (VET)

Evaluation of Hanford TRU Waste Characterization Program documents were based on current revisions of the following documents:

Hanford Site Quality Assurance Project Plan (QAPjP) for the Transuranic Waste Characterization Program

Related Hanford (PFP) technical and QA implementing procedures

3.0 AUDIT TEAM, INSPECTORS, AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Samuel Vega	CBFO QA Manager
Steven Calvert	Audit Team Leader, CTAC
Wayne Ledford	Auditor, CTAC
Patrick Kelly	Technical Specialist, CTAC

OBSERVERS/INSPECTORS

June Dreith	NMED/TechLaw Observer
Bob Thielke	NMED/TechLaw Observer
Steve Zappe	NMED Observer
Steve Holms	NMED Observer
James Channell	EEG Observer

4.0 AUDIT PARTICIPANTS

Hanford individuals involved in the audit process are identified in Attachment 1. A preaudit meeting was held at the 2420 Stevens Dr. Building, Conference Room 153, on June 11, 2001. A daily meeting was held with Hanford management and staff to discuss issues and potential deficiencies. The audit was concluded with a postaudit meeting held in Conference Room 153 of the 2420 Stevens Dr. Building on June 15, 2001.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy and Implementation

The audit team concluded that the Hanford QA program satisfactorily met the requirements of the WIPP WAP, effective date November 27, 1999. The audit team also concluded that the QA program was being satisfactorily implemented (reference audit A-01-03 for results of the evaluation of the Hanford re-certification). The Hanford PFP technical process for visual examination technique evaluated by the audit team was determined to be satisfactorily implemented and effective.

5.2 Technical Activities

5.2.1 B6-6 VE Checklist

The audit team evaluated visual examination technique (VET) operations applied to retrievably stored debris and homogeneous solid waste in the Plutonium Finishing Plant (PFP). The specific waste summary categories subject to the VET were "Rocky Flats Ash" (S3000, homogenous solids) and "Plutonium/Aluminum (Pu/Al) Alloys" (S5000, debris). The VE technique requirements for use at Hanford on TRU waste is promulgated to the waste generators by the TRU Site Project Office by way of procedure WMP-400, section 7.1.10, *TRU Waste Visual Examination Technique*. This is a generic procedure that applies to any waste generator performing VET of TRU waste for WIPP characterization at Hanford. The PFP has developed two procedures based on the requirements of WMP-400, section 7.1.10. Procedure ZO-160-080, *Pipe-N-Go Operations*, provides the instructions for repackaging and performing VET on residues. Implementation of this procedure at the time of the audit had been limited to Rocky Flats Ash. It is intended that this procedure be applied to other residues, such as Hanford Incinerator Ash, during future repackaging campaigns. The procedure requires that the residues be crushed and sieved during repackaging, the residues are also "blended down" with silica sand to reduce Pu concentrations. Procedure ZO-160-081, *Pu/Al Alloys Operations* is limited to repackaging and performing VET on Pu/Al alloys. Hanford intends to develop other procedures that meet the requirements of WMP-400, section 7.1.10 for other waste types in various facilities.

During the audit repackaging and VET operations were witnessed in PFP. These included the VE of Pu/Al alloy plates, the repackaging of these plates into billet cans, and the packaging of the billet cans into a pipe overpack component (POC). Hanford had completed the repackaging campaign for Rocky Flats Ash before the start of the audit. Several testing batch data reports were reviewed that documented the VE of Rocky Flats Ash repackaged in PFP.

The training of the VET operators was reviewed and found to meet the requirements of the TRU Waste Program. No deficiencies were identified in the area of VET and repackaging in PFP. The audit team determined that the written procedures for VET and repackaging were adequate. The audit team concluded that the VET and repackaging processes were satisfactorily implemented and effective.

6.0 SUMMARY OF DEFICIENCIES

6.1 Corrective Action Reports

During the audit, the audit team may identify Conditions Adverse to Quality (CAQ) and document that condition(s) on Corrective Action Reports (CARs).

Condition adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the Quality Assurance (QA) program.

No WAP related concerns requiring issuance of a CAR was identified during phases the audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify Conditions Adverse to Quality (CAQ). The audit team members and the Audit Team Leader (ATL) evaluates the CAQs to determine if they are significant using the following definitions. Once a determination is made that the CAQ is not significant, the audit team member in conjunction with the ATL determines if the CAQ is a isolated case requiring only remedial action and therefore can be Corrected During the Audit (CDA). Upon determination that the CAQ is isolated, the audit team member in conjunction with the ATL evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected the ATL categorizes the condition as a CDA.

Condition adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and correction of the deficiency

can be verified prior to the end of the audit. Examples include: One or two minor changes required to correct a procedure (isolated). One or two forms not signed or not dated (isolated). One or two individuals have not completed a reading assignment.

No WAP related CDAs were identified during this audit.

7.0 SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

During the audit, the audit team may identify conditions, which warrant input by the audit team to the audited organization regarding potential problems or suggestions for improvement. The audit team members, in conjunction with the Audit Team Leader (ATL), evaluates these conditions and classifies them as Observations or Recommendations using the following definitions. Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the conditions appropriately.

Observation – A condition that, if not controlled, could result in a CAQ

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

7.1 Observations

No WAP related Observation identified during the audit:

7.2 Recommendations

No WAP related Recommendations were provided to Hanford management during the audit:

8.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit and the List of Procedures Audited

Attachment 2: Corrective Action Supporting Documentation

Attachment 3: Objective Evidence

Attachment 4: Audited Hanford Implementing Procedures

ATTACHMENT 1

HANFORD PERSONNEL CONTACTED				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Ailes, Sid	Duratek Consultant	X	X	X
Aromi, Ed	FH/WMP/Vice President	X		X
Bartus, Dave	EPA Region 10	X		
Blackford, L.	FHI/WMP/Manager Waste Services	X		X
Brooks, Patti	FH Clerk		X	X
Campbell, Jim	Transportation Specialist			X
Cantaloub, Michael	FD/NDA/Engineer	X		X
Clinton, Richard	AK Data Collector	X		X
Colly, Briana	FH Plant Engineer	X		X
Crane, Paul J.	TRU Site Project Manager	X	X	X
DeRosa, David	FH SPM	X	X	X
Djang, Lincoln	FH Statistics Analyst			X
Dougherty, Leslie A.	TRU Records Specialist			X
French, Mark	DOE-RL Manager	X	X	X
Garcia, Art	WMP Manager			X
Gillespie, Bruce	Canberra, Scientist	X	X	
Greager, Eric	FH TRU Project	X	X	X
Greager, Tim	TRU Program/Alternate Site Project Manager	X		X
Guercia, Rudy	DOE-RL/Acting Director Waste Management			X
Hale, Joe	FH Scientist	X		X

HANFORD PERSONNEL CONTACTED				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Heath, Nettie	FH records Specialist			X
Higgins, Ron	DOE-RL/WRAP Facility Representative	X		
Huggins, Stewart	TRU QA/QC Engineer		X	X
Hutchins, Les	FH Plant Engineer		X	X
Ibatuan, Mark	FH Manager			X
Jamisen, Fred	WM Project Manager			X
Jasen, William	FH Sr. Project Manager		X	
Jones, Pat	FH PFP Operator		X	
Kidder, Bryan	Duratek/Communications	X		
Kooiker, Susan	FH Engineer	X		
Kover, Karola	FH Waste Certification Official Alternate	X		X
Leonard, Kathy	Transportation Certification Official	X		X
Maupin, Jim	Site Quality Assurance Officer	X	X	X
Meier, Kirsten	Facility Quality Assurance Officer/WSCF	X		X
Nance, Sheri	FH Alternate SQAO	X		X
Skeels, Brian	FH PFP Project Manager		X	X
Srader, Todd	DOE-RL Program Manager	X	X	X
Stauffer, Markus	COGEMA/Scientist	X		X

HANFORD PERSONNEL CONTACTED				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Sutter, Caroline	FH PFP Residues Manager	X	X	X
Svoboda, Ken	FH WCO	X		X
Thackaberry, W.R.	WRAP/Facility Quality Assurance Officer			X
Thomas, Debra	FH Training Administrator			X
Van Slyke, Jan	FH Procedure Writer			X
Westsik, George	FH Scientist	X	X	
Widhalm, Cherie Ann	FH Records Specialist	X		
Woodford, Barbara	FH PFP Operator		X	
Wright, Allison	DOE-RL Residues PM	X	X	X
Yale, Chris	FH PFP Operator		X	
Yoakum, A. K.	FH Maintenance Manager	X		

Personnel Contacted During the Audit by Area

Visual Examination Technique	E. Greager L. Hutchins W. Jasen P. Jones B. Skeels C. Widhalm B. Woodford
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HANFORD PROCEDURES AUDITED FOR A-01-16

NUMBER	PROCEDURE NUMBER	TITLE
1.	WMH-400, Section 7.1.10	TRU Waste Visual Examination Technique
2.	ZO-160-080	Pipe-N-Go Operations
3.	ZO-160-081	Plutonium/Aluminum Alloy Operations