

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

DATE: June 24, 2002

REPLY TO  
ATTN OF: CBFO:NTP:RMK:VW:02-2645:UFC:2300

SUBJECT: Expansion of Hanford Certification Authority to Include PFP SGSAS and VE Activities

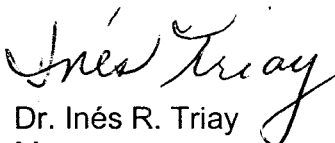
TO: Keith Klein, Manager, Richland Operations Office

The Carlsbad Field Office (CBFO) has completed the evaluation of the Hanford Site's Plutonium Facility Plant (PFP) Segmented Gamma Scan Assay System (SGSAS) can counter, visual examination (VE) and repackaging activities. Audit A-01-16 was conducted June 11-15, 2001 and surveillance S-02-04 was conducted December 18-19, 2001. The technical and QA programs were found to be in compliance with the "Waste Analysis Plan" (WAP) of the WIPP *Hazardous Waste Facility Permit* (HWFP), the *Quality Assurance Program Document* (QAPD), the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WIPP WAC) and other CBFO requirements and standards. Revised Hanford Site procedures have been reviewed and found to be in compliance with the new *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, (CH-WAC), DOE/WIPP-02-3122, Revision 0, and the *TRUPACT-II Authorized Methods for Payload Control* (TRAMPAC) revision 19.

Based on audit A-01-16 and surveillance S-02-04 the previous Hanford authority issued on September 10, 2001 is therefore expanded to include the SGSAS for contact-handled (CH) debris waste and the VE technique and packaging activities for retrievably stored CH homogeneous solids and debris waste. The following processes are currently certified at Hanford: acceptable knowledge, radiography, VE, headspace gas sampling and analysis, and nondestructive assay for retrievably stored CH debris waste; and VE technique and packaging activities at the PFP for both CH homogeneous solids and debris waste. Hanford may not ship homogeneous solids until such time that they receive certification for solid sampling and analysis and nondestructive assay of homogeneous solids.

Waste assayed after May 17, 2002 must be done in accordance with the new CH-WAC that became effective May 17, 2002. TRU waste characterization, certification, or transportation using significantly revised or new processes, systems, or procedures must be evaluated by the CBFO prior to their implementation. See attachments 2 and 3 for complete lists of certified procedures, documents, and systems.

If you have any questions, please contact Mr. Kerry Watson at (505) 234-7357.

  
Dr. Inés R. Triay  
Manager

Attachments



Keith Klein

-2-

June 24, 2002

cc: w/attachments  
T. Harms, DOE-HQ  
K. Watson, CBFO  
R. Knerr, CBFO  
A. Holland, CBFO  
C. Zvonar, CBFO  
T. Shrader, DOE-RL  
P. Crane, Hanford  
B. Walker, EEG  
F. Marcinowski, EPA  
S. Monroe, EPA  
S. Zappe, NMED  
P. Rouse, WIPP Operating Record  
L. Greene, WTS  
J. Bennett, WTS  
D. Standiford, WTS  
M. Strum, WTS  
P. Rodriguez, CTAC  
T. Bowden, CTAC  
CBFO Mailroom



## HANFORD CERTIFICATION PROGRAM STATUS

The CBFO Office of the National TRU Program Manager and Quality Assurance Manager have evaluated the documentation supporting the compliance of the Hanford PFP Segmented Gamma Scan Assay System (SGSAS) can counter for debris waste and the visual examination (VE) technique and repackaging activities for debris and homogeneous solids. The recommendation to the CBFO Manager is that the Hanford certification authority issued on September 10, 2001 be expanded to include the PFP activities evaluated during audit A-01-16 (conducted June 11-15, 2001) and surveillance S-02-04 (conducted December 18-19, 2001).

The following processes are currently certified at Hanford: acceptable knowledge, radiography, visual examination (VE), headspace gas sampling and analysis, and nondestructive assay for retrievably stored CH debris waste; VE technique and packaging activities at the PFP for both CH homogeneous solids and debris waste. Hanford may not ship any homogeneous solids until such time that they receive certification for solid sampling and analysis and nondestructive assay of homogeneous solids. Attachments 2 and 3 provide complete lists of applicable procedures and systems.

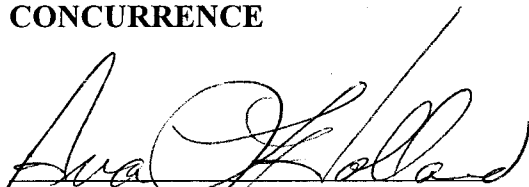
### STATUS

- All program elements remain complete and current.
- The following Hanford required site documents have been revised, approved, and are current. These program documents demonstrate how the site complies with CBFO requirements.
  - **QAPjP** – *Hanford Site Transuranic Waste Characterization Quality Assurance Project Plan*, HNF-2599, Revision 6.
  - **WCP** - *Hanford Site Transuranic Waste Certification Plan*, HNF-2600, Revision 6.
  - **QAP** – Section 5.0 of the WCP.
  - **TRAMPAC and QA Plan** – Sections 4.0 and 5.0 of the WCP.
  - **Packaging QA Plan** – Section 5.0 of the WCP.
  - Standard operating procedures (see attachment 3 for complete procedure list)
- Hanford participation in the following performance demonstration programs (PDPs):
  - **RCRA PDP** – Hanford is not yet performing solid sampling and analysis, therefore they did not participate in cycle 7A or 8A of the RCRA PDP.
  - **NDA PDP Drums** – Participation was satisfactory in cycle 8A (Memo CBFO:NTP:MRB:VW:01-1785 dated November 20, 2001)
  - **HSG PDP** – Participation was satisfactory in cycle 15A (Memo CBFO:NTP:MRB:VW:01-0556 dated March 19, 2001 and Cycle 16A (Memo CBFO:NTP:MB:LM:02-2116 dated March 5, 2002).
- CBFO completed audit A-01-16 on June 15, 2001 and surveillance S-02-04 on December 19, 2001.
- EPA participated in both A-01-16 and S-02-04. EPA report for Inspection No. EPA-Hanford 12.01-8 dated April 25, 2002 approved the SGSAS NDA system for CH debris waste and the VE technique process for both debris and solids.
- NMED approved Final Audit Report A-01-16 for the PFP VE technique for both retrievably stored CH debris and homogeneous solids waste on February 1, 2002.
- All CARs have been verified and closed.

**RECOMMENDATION**

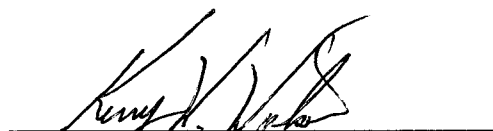
The recommendation to the CBFO Manager is to expand the Hanford transportation and waste certification authority issued on September 10, 2001 to include the PFP SGSAS for CH debris, and the VE technique and packaging activities for retrievably stored CH homogeneous solids and debris waste. It is recommended that the certification authority be limited to those systems and processes certified on September 10, 2001 and those activities audited during audit A-01-16 and surveillance S-02-04. Attachments 2 and 3 are lists of systems and procedures that constitute the bounds of the Hanford transportation and waste certification authority.

**CONCURRENCE**



Ms. Ava L. Holland  
Quality Assurance Manager

6/21/02  
Date



Mr. Kerry W. Watson  
CBFO Assistant Manager  
National TRU Program

6/21/02  
Date

## Hanford Certified Equipment List

WIPP #	Site Equipment Number or Title	Description	Components	Software
<b>Headspace Gas</b>				
2HG1	HSG US00033159	Gas Chromatograph/Mass Spectrometer – VOCs analysis	<input type="checkbox"/> GC/MS (method described in procedure LA-523-410)	<input type="checkbox"/> EnvironQuant ChemStation G1701BA
2HG2	HSG US00032565	Gas Chromatograph/Mass Spectrometer – VOCs analysis	<input type="checkbox"/> GC/MS (method described in procedure LA-523-410)	<input type="checkbox"/> EnvironQuant ChemStation G1701BA
<b>Non-destructive Assay</b>				
2SG1	PFP Room 170 SGSAS	PFP Room 170 Segmented Gamma Scan Assay System	<input type="checkbox"/> 2 HPGe detectors associated vertical drive and turntable <input type="checkbox"/> 1 30% relative SEGe and BEGe detector	<input checked="" type="checkbox"/> Genie PC Software Suite, version 2.2 including Gamma Waste Assay Software (GWAS), v.2.3.a <input type="checkbox"/> Multiple Group Analysis (MGA) v.9.5 CI <input type="checkbox"/> PFPTMU <input type="checkbox"/> Automated Independent Technical Review (AITR)
2GE1	Canberra 104-ND-06-102A	Gamma Energy Assay System Unit A	<input type="checkbox"/> GEA system consisting of: <ul style="list-style-type: none"> <li>o 4 high resolution coaxial germanium detectors to detect the main spectrum of gamma radiation</li> <li>o 2 high resolution planar germanium detectors to detect the low energy gamma spectra</li> </ul>	Genie PC Gamma Waste Assay Software
<b>Non-destructive Examination</b>				
2RR1	104-ND-06-104A NDE-A	VJ Technology real-time radiography unit	VJ Technology RTR unit consisting of: <ul style="list-style-type: none"> <li><input type="checkbox"/> shielded vault</li> <li><input type="checkbox"/> drum manipulator</li> <li><input type="checkbox"/> 1 x-ray tube with diaphragm shutters</li> <li><input type="checkbox"/> image intensifier</li> <li><input type="checkbox"/> video camera and shutters</li> <li><input type="checkbox"/> Linear Diode Array detector</li> </ul>	None
2RR2	104-ND-06-104B NDE-B	VJ Technology real-time radiography unit	VJ Technology RTR unit consisting of: <ul style="list-style-type: none"> <li><input type="checkbox"/> shielded vault</li> <li><input type="checkbox"/> drum manipulator</li> <li><input type="checkbox"/> 1 x-ray tube with diaphragm shutters</li> <li><input type="checkbox"/> image intensifier</li> <li><input type="checkbox"/> video camera and shutters</li> <li><input type="checkbox"/> Linear Diode Array detector</li> </ul>	None

**HANFORD LIST OF CERTIFIED PROCEDURES/DOCUMENTS**

#	PROCEDURE NUMBER	TITLE
1.	DO-080-009	Obtain Headspace Gas Samples of TRU Waste Containers
2.	FSP-PFP-5-8, 16.2	Data Management
3.	HNF-2599	Hanford Site Transuranic Waste Characterization Quality Assurance Project Plan
4.	HNF-2600	Hanford Site Transuranic Waste Certification Plan
5.	HNF-4050	Total Measurement Uncertainty for Nondestructive Assay of Transuranic Waste at the Receiving and Processing Facility
6.	HNF-4051	Quality Assurance Objectives for Nondestructive Assay of Transuranic Waste at the Receiving and Processing Facility
7.	HNF-5148	Calibration Report for the WRAP Gamma Energy Assay System
8.	LA-523-410	Determination of VOCs in TRU/Mixed Waste Container Headspace
9.	LO-080-407	Cleaning SUMMA Canisters
10.	LO-090-450	TRU Project Sample Chain-of-Custody, Acceptance, and Disposal
11.	WMP-350, section 2.2	Calculation of Assay Results
12.	WMP-350, section 2.3	Data Management of NDE/NDA Results
13.	WMP-350, section 2.5	GEA Energy and Efficiency Setup and Baseline Establishment
14.	WMP-400, section 1.1.2	TRU Graded Approach
15.	WMP-400, section 1.2.1	TRU Training and Qualification Plan
16.	WMP-400, section 1.2.2	Qualification and Certification of Inspection and Test Personnel
17.	WMP-400, section 1.2.3	Qualification and Certification of Audit Personnel
18.	WMP-400, section 1.3.1	TRU Corrective Action Management
19.	WMP-400, section 1.3.2	TRU Nonconforming Item Reporting and Control System
20.	WMP-400, section 1.3.3	TRU Corrective Action Reporting and Control
21.	WMP-400, section 1.4.1	TRU Document Control
22.	WMP-400, section 1.5.1	TRU Records Management
23.	WMP-400, section 2.1.1	TRU Process Control
24.	WMP-400, section 2.1.2	TRU Operating Procedure Preparation and Approval
25.	WMP-400, section 2.1.3	TRU Administrative Procedure Preparation and Approval
26.	WMP-400, section 2.1.4	TRU Handling and Storage
27.	WMP-400, section 2.1.5	TRU Transportation Logistics
28.	WMP-400, section 2.1.6	TRU Analytical Procedure Process
29.	WMP-400, section 2.3.1	TRU Procurement Planning
30.	WMP-400, section 2.3.2	TRU Procurement Document Control
31.	WMP-400, section 2.3.3	TRU Control of Purchased Items and Services
32.	WMP-400, section 2.4.1	TRU Inspection Control
33.	WMP-400, Section 2.4.2	TRU Test Control
34.	WMP-400, section 2.4.4	TRU Control of Measuring, Test, and Data Collecting Equipment
35.	WMP-400, section 2.4.5	TRU Identification and Control of Items
36.	WMP-400, section 3.1.1	TRU Management Assessment
37.	WMP-400, section 3.1.2	Quality Assurance Reports to Management
38.	WMP-400, section 3.2.1	TRU Independent Assessments
39.	WMP-400, section 3.2.2	TRU Surveillance Program
40.	WMP-400, section 6.1.1	TRU Software Quality Assurance
41.	WMP-400, section 7.1.1	TRU Waste DQOs Reconciliation and Reporting
42.	WMP-400, Section 7.1.10	TRU Waste Visual Examination Technique
43.	WMP-400, section 7.1.3	Transuranic Waste Repackaging, Visual Examination, and Sampling
44.	WMP-400, section 7.1.4	Sampling Design and Data Analysis for RCRA Characterization and Visual Examination of Retrievably Stored Waste
45.	WMP-400, section 7.1.5	WWIS Data Reporting and Entry
46.	WMP-400, section 7.1.6	TRU Waste Project Level Data Validation and Verification
47.	WMP-400, section 7.1.7	TRU Waste Sample and Waste Container Management Activities
48.	WMP-400, section 7.1.8	Transuranic Waste Transportation and Disposal Certification

**HANFORD LIST OF CERTIFIED PROCEDURES/DOCUMENTS**

49.	WMP-400, section 7.1.9	Acceptable Knowledge Documentation Management
50.	WMP-400, section 8.1.1	Logkeeping Practices for WIPP Activities in Special Analytical Support
51.	WMP-400, section 8.1.8	Data Management for Headspace Gas Results
52.	WRP1-OP-0503	Move Drums Throughout WRAP
53.	WRP1-OP-0521	Receive and Load TRUPACT Containers
54.	WRP1-OP-0522	Assemble and Stretch Wrap TRUPACT Payload
55.	WRP1-OP-0524	Helium Leak Detector Operation
56.	WRP1-OP-0725	TRU Sorting Glovebox Operation
57.	WRP1-OP-0726	Glovebox Loadout
58.	WRP1-OP-0729	Visual Examination
59.	WRP1-OP-0906	Gamma Energy Assay Operations
60.	WRP1-OP-0908	Operation of Drum NDE System
61.	WRP1-OP-0911	Storage and Use of Special Nuclear Material (for PDP work only)
62.	WRP1-OP-1225	Radiological Support of TRUPACT-II Shipping and Receiving
63.	ZA-400-301	SAS Energy and Efficiency Setup and Baseline Determination
64.	ZA-400-302	Calculation of Assay Results
65.	ZA-948-385	NDA Using the Segmented Gamma Assay System (SGSAS)
66.	ZO-160-080	Pipe-N-Go Operations

**Hanford Inactive or Cancelled Procedures**

#	Procedure Number	Procedure Title	Date
1.	WMP-350, section 2.4	Quality Assurance Objectives for NDA at WRAP Cancelled - Replaced by WMP-350, sections 2.8 and 2.9 <b>(approved by CBFO 5/16/02 - not yet audited)</b>	5/17/02
2.	FSP-PFP-5.8, 16.1	Quality Assurance Objectives for NDA at PFP Cancelled - Replaced by FSP-PFP-5-8, sections 16.3 and 16.4 <b>(approved by CBFO 5/16/02 - not yet audited)</b>	5/17/02
3.	LA-523-426	Determination of Permanent Gases in Waste Container Headspace – Inactive	4/15/02
4.	ZO-160-081	Plutonium/Aluminum Alloy Operations – Inactive	2/28/02