

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

DATE: September 12, 2002

REPLY TO  
ATTN OF: CBFO:NTP:RMK:VW:02-2836:UFC:5822

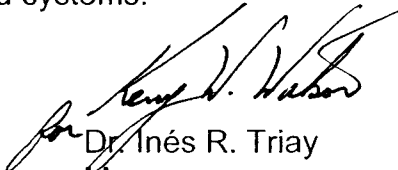
SUBJECT: Expansion of Hanford Certification Authorization to Include Use of SGSAS for Solids and GEA-B for Debris

TO: Keith Klein, Manager, Richland Operations Office

The Carlsbad Field Office (CBFO) has completed an evaluation of the Hanford Site's Plutonium Facility Plant (PFP) segmented gamma scan assay system (SGSAS) for assaying homogeneous solids and the gamma energy assay system, unit B (GEA-B) for assaying debris waste. The evaluation of these two systems was conducted during the annual recertification audit (A-02-23) that took place June 24-28, 2002. 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 *Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, (CH-WAC), DOE/WIPP-02-3122, the *TRUPACT-II Authorized Methods for Payload Control* (TRAMPAC), and other CBFO requirements.

Based on audit A-02-23, the previous Hanford authorization issued on September 10, 2001 (annual recertification) and June 24, 2002 (SGSAS for assaying debris and visual examination technique for packaging activities at the PFP) is therefore expanded to include the use of the SGSAS for assaying contact-handled (CH) homogeneous solids and the GEA-B system for assaying CH retrievably-stored debris waste. Hanford may not ship homogeneous solids to the Waste Isolation Pilot Plant until such time that they receive certification for solid sampling and analysis.

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.

  
Dr. Inés R. Triay  
Manager

Attachments

020917



Keith Klein

-2-

September 12, 2002

cc: w/attachments  
T. Harms, DOE-HQ  
K. Watson, CBFO  
R. Knerr, CBFO  
A. Holland, CBFO  
M. Navarrete, CBFO  
T. Shrader, DOE-RL  
P. Crane, Hanford  
B. Walker, EEG  
F. Marcinowski, EPA  
S. Monroe, EPA  
E. Feltcorn, EPA  
R. Joglekar, 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

SEP 2002

## HANFORD CERTIFICATION PROGRAM STATUS

The CBFO Office of the National TRU Program Manager and the Quality Assurance Manager have evaluated the documentation supporting the compliance of the Hanford Sites' TRU waste programs. The recommendation to the CBFO Manager is that the previously issued authorization be expanded to include the gamma energy assay system, unit B (GEA-B) for assaying retrievably-stored contact-handled debris waste and the segmented gamma scan assay system (SGSAS) for assaying homogeneous solids. Attachments 2 and 3 provide complete lists of all currently certified procedures and systems, including those evaluated for these new systems during audit A-02-23.

The following processes are currently approved at the Hanford Site for characterizing contact-handled debris waste:

- Acceptable knowledge
- Headspace gas sampling and analysis
- Radiography
- Visual examination
- Visual examination technique
- Non-destructive assay (SGSAS, GEA-A, GEA-B)
- Transportation

Hanford is also approved for assaying homogeneous solids using the SGSAS. Hanford may not ship homogeneous solids until such time that they receive certification for solid sampling and analysis.

### STATUS

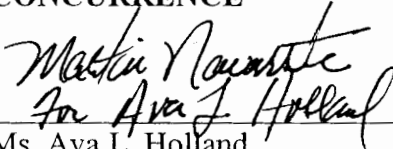
- All program elements remain complete
- The following required site documents have been revised, approved, and are in place identifying how the site complies with the CBFO upper-tier documents and other CBFO requirements:
  - QAPjP
    - *Hanford Site Transuranic Waste Characterization Quality Assurance Project Plan, HNF-2599, Rev. 6*
  - WCP
    - *Hanford Site Transuranic Waste Certification Plan, HNF-2600, Rev. 6*
  - QAP
    - Section 5.0 of WCP
  - TRAMPAC and QA Plan
    - Section 4.0 of WCP
  - Packaging QA Plan
    - Section 5.0 of WCP
  - Certified Systems
    - see attachment 2 for a complete list of certified systems
  - Standard operating procedures

- see attachment 3 for a complete procedure list
- Hanford Site participation in the following performance demonstration programs (PDPs):
  - NDA PDP participation was satisfactory in cycle 8A, memo CBFO:NTP:MRB:VW:01-1785 dated November 20, 2001
  - HSG PDP participation was satisfactory in cycle 16A, memo CBFO:NTP:MRB:VW:02-2116 dated March 5, 2002
- EPA approved the SGSAS for homogeneous solids and GEA-B for debris waste in EPA letter dated August 15, 2002 and Inspection Report No. EPA-HANFORD-06 .02-8.
- Audit A-02-23 was conducted at the Hanford Site the week of June 24-28, 2002. The SGSAS and GEA-B systems were found to be in compliance with the CBFO requirements.
- Two CARs were issued during the audit. CAR 02-069 was closed on August 6, 2002, and CAR 02-070 was closed on August 15, 2002.

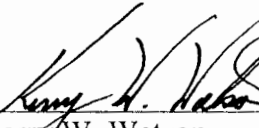
**RECOMMENDATION**

The recommendation to the CBFO Manager is that the previously issued Hanford characterization, certification, and transportation authorizations be expanded to include the gamma energy assay system, unit B (GEA-B) for assaying retrievably-stored contact-handled debris waste and the segmented gamma scan assay system (SGSAS) for assaying homogeneous solids. It is also recommended that Hanford's authorization be limited to those granted on September 10, 2001, June 24, 2002, and these new nondestructive assay systems evaluated during audit A-02-23. Attachments 2 and 3 provide the complete lists of systems and procedures currently certified at the Hanford Site.

**CONCURRENCE**

  
\_\_\_\_\_  
Ms. Ava L. Holland  
Quality Assurance Manager

9-11-02  
Date

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

9/12/02  
Date

WIPP #	Site Equipment Number	Title	Description	Components	Software
				<ul style="list-style-type: none"> <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>	

### 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, section 16.2	Data Management
3.	FSP-PFP-5-8, section 16.3	Establishing QC Criteria for the SGSAS
4.	FSP-PDP-5-8, section 16.4	Calibration Confirmation for the SGSAS at PFP
5.	HNF-2599	Hanford Site Transuranic Waste Characterization Quality Assurance Project Plan
6.	HNF-2600	Hanford Site Transuranic Waste Certification Plan
7.	HNF-4050	Total Measurement Uncertainty for Nondestructive Assay of Transuranic Waste at the Receiving and Processing Facility
8.	HNF-4051	Quality Assurance Objectives for Nondestructive Assay of Transuranic Waste at the Receiving and Processing Facility
9.	HNF-5148	Calibration Report for the WRAP Gamma Energy Assay System
10.	LA-523-410	Determination of VOCs in TRU/Mixed Waste Container Headspace
11.	LO-080-407	Cleaning SUMMA Canisters for TRU Headspace Gas Sampling
12.	LO-090-450	TRU Project Sample Storage, COC, Acceptance, and Disposal
13.	WMP-350, section 2.2	Calculation of Assay Results
14.	WMP-350, section 2.3	Data Management
15.	WMP-350, section 2.5	GEA Energy and Efficiency Setup and Baseline Establishment
16.	WMP-350, section 2.8	WRAP NDA Measurement Control Program
17.	WMP-350, section 2.9	Performing Calibration Verifications and Confirmation for Nondestructive Assay at WRAP
18.	WMP-400, section 1.1.2	TRU Graded Approach
19.	WMP-400, section 1.2.1	TRU Training and Qualification Plan
20.	WMP-400, section 1.2.2	Qualification and Certification of Inspection and Test Personnel
21.	WMP-400, section 1.2.3	Qualification and Certification of Audit Personnel
22.	WMP-400, section 1.3.1	TRU Corrective Action Management
23.	WMP-400, section 1.3.2	TRU Nonconforming Item Reporting and Control System
24.	WMP-400, section 1.3.3	TRU Corrective Action Reporting and Control
25.	WMP-400, section 1.4.1	TRU Document Control
26.	WMP-400, section 1.5.1	TRU Records Management
27.	WMP-400, section 2.1.1	TRU Process Control
28.	WMP-400, section 2.1.2	TRU Operating Procedure Preparation and Approval
29.	WMP-400, section 2.1.3	TRU Administrative Procedure Preparation and Approval
30.	WMP-400, section 2.1.4	TRU Handling and Storage
31.	WMP-400, section 2.1.5	TRU Transportation Logistics
32.	WMP-400, section 2.1.6	TRU Analytical Procedure Process
33.	WMP-400, section 2.3.1	TRU Procurement Planning
34.	WMP-400, section 2.3.2	TRU Procurement Document Control
35.	WMP-400, section 2.3.3	TRU Control of Purchased Items and Services
36.	WMP-400, section 2.4.1	TRU Inspection Control
37.	WMP-400, section 2.4.2	TRU Test Control
38.	WMP-400, section 2.4.4	TRU Control of Measuring, Test, and Data Collecting Equipment
39.	WMP-400, section 2.4.5	TRU Identification and Control of Items
40.	WMP-400, section 3.1.1	TRU Management Assessment
41.	WMP-400, section 3.1.2	Quality Assurance Reports to Management
42.	WMP-400, section 3.2.1	TRU Independent Assessments
43.	WMP-400, section 3.2.2	TRU Surveillance Program
44.	WMP-400, section 6.1.1	TRU Software Quality Assurance
45.	WMP-400, section 7.1.1	TRU Waste Data Quality Objectives Reconciliation and Reporting
46.	WMP-400, section 7.1.10	TRU Waste Visual Examination Technique

47.	WMP-400, section 7.1.3	Transuranic Waste Repackaging, Visual Examination, and Sampling
48.	WMP-400, section 7.1.4	Sampling Design and Data Analysis for RCRA Characterization and Visual Examination of Retrievably Stored Transuranic Waste
49.	WMP-400, section 7.1.5	WIPP Waste Information System Data Entry and Reporting
50.	WMP-400, section 7.1.6	TRU Waste Project Level Data Validation and Verification
51.	WMP-400, section 7.1.7	TRU Waste Container Management Activities
52.	WMP-400, section 7.1.8	Transuranic Waste Transportation and Disposal Certification
53.	WMP-400, section 7.1.9	Acceptable Knowledge Documentation Management
54.	WMP-400, section 8.1.1	Logkeeping Practices for WIPP Activities for Headspace Gas Sampling and Analysis
55.	WMP-400, section 8.1.8	Headspace Gas Sampling and Analytical Results
56.	WRP1-OP-0503	Move Drums Throughout WRAP
57.	WRP1-OP-0521	Receive and Load TRUPACT-II Containers
58.	WRP1-OP-0522	Assemble and Stretch Wrap TRUPACT-II Payload
59.	WRP1-OP-0524	Helium Leak Test of the TRUPACT-II Shipping Container
60.	WRP1-OP-0725	TRU Sorting Glovebox Operation
61.	WRP1-OP-0726	TRU Loadout Glovebox Operations
62.	WRP1-OP-0729	Visual Examination
63.	WRP1-OP-0906	Gamma Energy Assay Operations
64.	WRP1-OP-0908	Operation of Drum Nondestructive Examination System
65.	WRP1-OP-0911	Storage and Use of Special Nuclear Material (for PDP work only)
66.	WRP1-OP-1225	Radiological Support of TRUPACT-II Shipping and Receiving
67.	ZA-400-301	SGSAS Energy and Efficiency Setup and Baseline Determination
68.	ZA-400-302	Calculation of Assay Results
69.	ZA-948-385	Nondestructive Assay Using the Segmented Gamma Assay System (SGSAS)
70.	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	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	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