

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

DATE: April 5, 2001

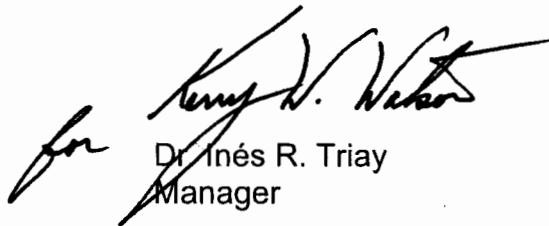
REPLY TO  
ATTN OF: CBFO:QA:SAV:VW:01-0663:UFC:2300

SUBJECT: Authority for Certification and Characterization of Debris Waste

TO: James Nunz, LAAO

The Carlsbad Field Office (CBFO) has completed an evaluation of the Los Alamos National Laboratory (LANL) programs for quality assurance, transportation, characterization, and certification of defense transuranic (TRU) retrievably stored debris waste. The characterization methods evaluated were the mobile passive-active neutron (PAN), multiple tomographic gamma scanner (TGS), high efficiency neutron counter (HENC) and the fixed-energy response function analysis with multiple efficiency (FRAM) non destructive assay systems, real-time radiography (RTR), acceptable knowledge (AK), headspace gas (HSG) sampling and analysis, and visual examination (VE). Based on this evaluation (see attachment 1), the CBFO is satisfied that these activities meet all the requirements of the Waste Analysis Plan of the WIPP Hazardous Waste Facility Permit, the *Waste Acceptance Criteria for the Waste Isolation Pilot Plant*, the *Quality Assurance Program Document*, and other CBFO requirements and standards.

The LANL transportation and waste certification authority is limited to those activities evaluated during audits A-00-13 (conducted August 28-31, 2000) and A-00-16 (conducted September 25-28, 2000). Attachment 2 contains a complete list of the procedures that were evaluated. TRU waste characterization, certification, or transportation using significantly revised or new processes and systems must be evaluated by the CBFO prior to their implementation.



Dr. Inés R. Triay  
Manager

Attachments

010416



James Nunz, LAAO

-2-

April 5, 2001

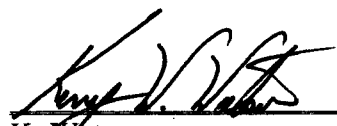
cc: w/attachments  
T. Harms, DOE/HQ  
K. Watson, CBFO  
S. Vega, CBFO  
H. Johnson, CBFO  
B. Bennington, CBFO  
P. Rogers, LANL  
M. Gavett, LANL  
M. Gerle, WID  
D. Standiford, WID  
F. Marcinowski, EPA  
M. Kruger, EPA  
S. Zappe, NMED  
M. Horseman, CTAC  
T. Bowden, CTAC

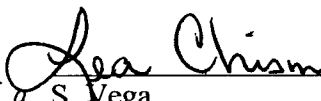


**RECOMMENDATION**

The panel recommends that the CBFO Manager grant LANL authority to characterize, certify and transport TRU retrievably stored debris waste. It is also recommended that this authority be limited to those systems and processes audited during audits A-00-13 and A-00-16.

**CONCURRENCE**

  
K. Watson      4/4/01  
Assistant Manager      date  
National TRU Program

for   
S. Vega      4/4/01  
Quality Assurance Team Leader      date

  
H. Johnson      4/4/01  
Acting Assistant Manager      date  
Regulatory Compliance

## LANL SITE CERTIFICATION PROGRAM STATUS

The site certification panel evaluated the documentation supporting the compliance of LANL's TRU waste quality assurance, transportation, characterization, and certification activities. The panel unanimously recommends that LANL be granted authority to transport, characterize, and certify retrievably stored debris waste using the following systems and/or processes: mobile passive-active neutron (PAN), multiple tomographic gamma scanner (TGS), high efficiency neutron counter (HENC), and fixed-energy response function analysis with multiple efficiency (FRAM) non-destructive assay systems; real-time radiography (RTR); acceptable knowledge (AK); headspace gas (HSG) sampling and analysis; and visual examination (VE). The quality assurance program was found to be effectively implemented. See attachment 2 for the complete lists of procedures that were evaluated during audits A-00-13 and A-00-16.

### STATUS

- All necessary program elements have been determined to be complete
- The following LANL required site documents have been revised, approved, and are in place identifying how the site complies with the WIPP Hazardous Waste Facility Permit WAP, CAO QAPD, and WIPP WAC requirements:
  - WCP – *Los Alamos National Laboratory Transuranic Waste Certification Plan*, TWCP-PLAN-0.2.4-001, Rev. 5, August 8, 2000
  - QAPjP – *Los Alamos National Laboratory Transuranic Waste Quality Assurance Project Plan*, TWCP-PLAN-0.2.3-001, Rev. 5, August 8, 2000
  - QAP – (Section 5.0 of WCP); *Quality Assurance Management Plan*, TWCP-PLAN-0.2.6-001, Rev. 4, August 2000
  - TRAMPAC and QA PLAN – (Section 4.0 of WCP)
  - Packaging QA Plan – (Section 5.0 of WCP)
  - Graded Approach Procedure – *Grading TWCP Activities*, TWCP-QP-1.1-029, Rev. 4, March 31, 2000
  - Procedures Matrix – *LANL QAPD Requirements Matrix*, August 17, 2000
  - Standard operating procedures (see attachment 2 for complete procedure lists)
- LANL successfully participated in the following performance demonstration programs (PDPs):
  - NDA PDP participation cycle was satisfactory in cycle 7A (report date October 2000).
  - HSG PDP participation cycle was satisfactory in cycle 14A (report date June 2000).
- CAO conducted audits A-00-13 (August 28-31, 2000) and A-00-16 (September 25-28, 2000). These audits determined that the processes, documentation, and procedures listed in attachment 2 are adequate and effectively implemented.
- CARs issued during audits A-00-13 and A-00-16 were successfully implemented and closed. No significant CARs remain open.

<b>LANL PROCEDURES AUDITED (A-00-13)</b>		
<b>ITEM NUMBER</b>	<b>PROCEDURE NUMBER</b>	<b>TITLE</b>
1.	DTP 1.2-009	Waste Assay Using the Passive-Active Neutron (PAN) Assay System
2.	DTP 1.2-010	Calibrating the Mobile Passive-Active Neutron Assay System
3.	DTP 1.2-011	Waste Assay Using the Tomographic Gamma Scanner
4.	DTP 1.2-016	Calibrating the Tomographic Gamma Scanner Assay System
5.	DTP 1.2-029	Determining Isotopic Ratios in Waste Containers Using the RANT PC/FRAM Assay System
6.	DTP 1.2-030	TRUPACT II Operations and Leak Testing
7.	DTP 1.2-031	Varian Porta-Test Leak Detector Procedure
8.	DTP 1.2-032	Adjustable Center of Gravity Lift Fixture
9.	DTP 1.2-034	Waste Transportation Certification Implementation
10.	DTP 1.2-035	Off-site Transportation of CH-TRU Waste
11.	DTP 1.2-059	Operating the High Efficiency Neutron Counter using INCC
12.	DTP 1.2-060	Calibrating the High Efficiency Neutron Counter Using the INCC
13.	QP 1.1-001	Procedure Preparation, Review, Approval, Revision, and Interim Change
14.	QP 1.1-002	Document Control
15.	QP 1.1-003	TWCP Training
16.	QP 1.1-004	Records Management
17.	QP 1.1-005	Procurement
18.	QP 1.1-006	Software Management
19.	QP 1.1-007	Nonconformance Reporting and Tracking
20.	QP 1.1-008	Corrective Action Reporting and Tracking
21.	QP 1.1-009	Surveillances
22.	QP 1.1-018	Measuring and Test Equipment
23.	QP 1.1-020	Root Cause Analysis
24.	QP 1.1-026	Trend Analysis
25.	QP 1.1-027	Audits
26.	QP 1.1-029	Grading TWCP Activities
27.	QP 1.1-030	Work Suspension
28.	QP 1.1-032	Hazardous Material Transportation and Tracking
29.	QP 1.1-033	Management Assessments

<b>LANL PROCEDURES AUDITED (A-00-16)</b>		
<b>ITEM #</b>	<b>PROCEDURE NUMBER</b>	<b>TITLE</b>
1.	PLAN-0.2.7-001	TRU Waste Characterization Sampling Plan
2.	DTP 1.2-001	Visual Examination Procedure for TWCP
3.	DTP 1.2-002	WCRRF Procedure for Video System
4.	DTP 1.2-006	Calculation of UCL <sub>90</sub> Values for HGAS VOC, Total VOC, SVOC, and Metals Data
5.	DTP 1.2-008	Detailed Operating Procedure for Performing NDT Using the Mobile Real Time Radiography System
6.	DTP 1.2-015	Calculation for Determining the Number of Containers for VE
7.	DTP 1.2-025	Headspace Gas Analysis Batch Data Report Preparation
8.	DTP 1.2-038	HGAS Filter Removal and Replacement for TWCP
9.	DTP 1.2-041	Headspace Gas Sampling & Analysis Using an Automated Manifold
10.	DTP 1.2-053	Assignment of Waste Matrix Codes
11.	DTP 1.2-063	Preparing and Handling Waste Containers
12.	DTP 1.2-064	Waste Characterization Data Reconciliation with AK
13.	QP 1.1-003	TWCP Training
14.	QP 1.1-004	Records Management
15.	QP 1.1-007	Nonconformance Reporting and Tracking
16.	QP 1.1-010	Project Level Data Validation and Verification
17.	QP 1.1-012	Laboratory Notebooks and Logbooks
18.	QP 1.1-017	Chain of Custody
19.	QP 1.1-021	Acceptable Knowledge Documentation
20.	QP 1.1-022	PDP Blind Audit Sample Management
21.	QP 1.1-024	Reporting Summarized Characterization Data to CAO
22.	QP 1.1-028	Reconciliation of VE and RTR Information
23.	QP 1.1-034	WWIS Data Entry
24.	QP 1.1-035	Qualification of TWCP NDE Personnel
25.	QP 1.1-039	Conversion of Waste Volumes to Weights
26.	QP 1.1-040	Tracking and Reporting of Tentatively Identified Compounds