

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

DATE: June 27, 2002

REPLY TO  
ATTN OF: CBFO:NTP:RMK:VW:02-2648:UFC:5822SUBJECT: Expansion of INEEL TRU Waste and Transportation Certification Authority to  
Include Overpack Activities for Standard Waste Boxes

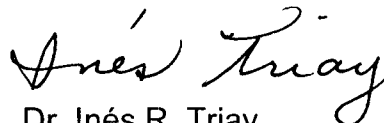
to: Warren E. Bergholz, Jr., Manager, Idaho Operations Office

The Carlsbad Field Office (CBFO) has completed a surveillance of the Idaho National Engineering and Environmental Laboratory's (INEEL) standard waste box (SWB) overpack activities. The technical and quality assurance 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 *CH Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant* (WIPP CH-WAC), the *TRUPACT-II Authorized Methods for Payload Control* (TRAMPAC), and other CBFO requirements and standards.

Based on surveillance S-02-17 (conducted May 21-22, 2002) the INEEL certification authority issued on May 30, 2002 is therefore expanded to include overpack activities for SWBs. Current certification authority for INEEL includes: transportation, headspace gas sampling and analysis, solid sampling and analysis, visual examination, real-time radiography, and nondestructive assay of CH-TRU debris and organic and inorganic homogeneous solids, and overpacking SWBs. See the attachments to this memorandum for complete lists of certified procedures, documents, and systems.

TRU waste characterization, certification, or transportation using significantly revised or new processes, procedures, or systems must be evaluated by the CBFO prior to their implementation.

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



Dr. Inés R. Triay  
Manager

Attachments

020644



Warren E. Bergholz, Jr.

-2-

June 27, 2002

cc: w/attachments  
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### Expansion of INEEL Certification Authority

The CBFO Office of the National TRU Program Manager and Quality Assurance Manager have evaluated the documentation supporting the compliance of overpacking in standard waste boxes (SWB) at INEEL and recommends that the CBFO Manager extend the certification authority to include overpacking. Current INEEL certification authority includes the following activities: transportation, headspace gas sampling and analysis, solid sampling and analysis, visual examination, real-time radiography, nondestructive assay of CH-TRU debris and organic and inorganic homogeneous solids waste, and overpacking activities associated with the SWBs. Attachments 2 and 3 provide complete lists of applicable procedures and systems, including those evaluated during surveillance S-02-17.

### STATUS

- All program elements remain complete and current.
- The following INEEL required site documents have been revised, approved, and are current. These program documents demonstrate how the site complies with CBFO requirements.
  - **QAPjP** – *Idaho National Engineering and Environmental Laboratory Quality Assurance Project Plan for the Transuranic Waste Characterization Program*, PLN-190, Revision 11.
  - **GGTP QAPjP** – *INEEL Quality Assurance Project Plan for Gas Generation Testing Program*, PLN-508, Revision 2.
  - **WCP** – *Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste*, PLN-579, Revision 4.
  - **QAP** – *TRU Waste characterization Certification, and Transportation Quality Program Plan*, PLN-182, Revision 7.
  - **TRAMPAC and QA Plan** – *INEEL TRUPACT-II Authorized Methods for Payload Control (TRAMPAC) Compliance Plan*, PLN-577, Revision 2.
  - **Packaging QA Plan** – (Section 4.3 of WCP)
  - Standard operating procedures (see attachment 3 for complete procedure list)
- INEEL participation in the following performance demonstration programs (PDPs):
  - RCRA PDP -- Participation was satisfactory in cycle 7A (Memo CBFO:NTP:MRB:VW:01-0518, dated February 1, 2001) and cycle 8A (Memo CBFO:NTP:MRB:VW:01-1011, dated May 9, 2001)
  - NDA PDP Drums – Participation was satisfactory in cycle 8A (Memo CBFO:NTP:MRB:VW:01-1786 dated November 20, 2001)
  - HSG PDP participation was satisfactory in cycle 16A (Memo CBFO:NTP:MRB:VW:02-2156 dated March 14, 2002)
- CBFO completed surveillance S-02-17 on May 22, 2002.
- There was no EPA inspection.
- NMED did not participate in this surveillance and there was no Final Report issued.
- There were no CARs issued for S-02-17.

**RECOMMENDATION**

The recommendation to the CBFO Manager is to expand the INEEL transportation and waste certification authority, issued on May 30, 2002, to include the activities associated with overpacking in SWBs. It is recommended that the authority be limited to those systems and processes certified on May 30, 2002 and the overpacking activities evaluated during S-02-17. Attachments 2 and 3 are lists of systems and procedures that constitute the bounds of the INEEL transportation and waste certification authority.

**CONCURRENCE**

Denis Smicks for  
Ms. Ava L. Holland  
Quality Assurance Manager

6-25-02  
Date

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

6-25-02  
Date

## INEEL CERTIFIED EQUIPMENT LIST

WIPP #	Site Equipment #	Site Description	Components	Software
<b>Headspace Gas</b>				
3HE1	GC/MS-E	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930	GC/MS (Method described in procedure ACMM-9930)	HP Enviroquant Chemstation
3HE2	GC/MS-F	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930	GC/MS (Method described in procedure ACMM-9930)	HP Enviroquant Chemstation
3HE3	GC/MS-G	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930	GC/MS (Method described in procedure ACMM-9930)	HP Enviroquant Chemstation
3HE4	GC/MS-H	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9930	GC/MS (Method described in procedure ACMM-9930)	HP Enviroquant Chemstation
3HE5	GC-1	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910	GC-FID (Method described in procedure ACMM-9910)	HP Chemstation
3HE6	GC-2	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910	GC-FID (Method described in procedure ACMM-9910)	HP Chemstation
3HE7	GC-5	Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925	GC-TCD (Method described in procedure ACMM-9925)	EZ Chrom 200
3HE8	GC-6	Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925	GC-TCD (Method described in procedure ACMM-9925)	EZ Chrom 200
3HE9	GC-7	Environmental Chemistry Lab - Headspace gas volatile organic compounds specified in procedure ACMM-9910	GC-FID (Method described in procedure ACMM-9910)	HP Chemstation
3HA1	VOA-1	Analytical Chemistry Lab – Total purgable volatile organic compound analysis specified in procedure ACMM-9260	GC/MS (Method described in ACMM-9260)	Finnigan Magnum
3HA2	VOA-3	Analytical Chemistry Lab – Total purgable volatile organic compounds specified in procedure ACMM-9260	GC/MS (Method described in ACMM-9260)	HP Chemstation
3HA3	GC-1	Analytical Chemistry Lab – Total non-halogenated volatile organic compounds specified in procedure ACMM-9441	GC-FID (Method described in ACMM-9441)	HP Chemstation
3HA4	GC-2	Analytical Chemistry Lab – Total non-halogenated volatile organic compounds specified in procedure ACMM-9441	GC-FID (Method described in ACMM-9441)	HP Chemstation
3HA5	SV-2	Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	GC/MS (Method described in ACMM-9270)	Varian
3HA6	SV-3	Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	GC/MS (Method described in ACMM-9270)	Varian
3HA7	SV-4	Analytical Chemistry Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	GC/MS (Method described in ACMM-9270)	HP Chemstation
3HM1	ID 322554	Analytical Chemistry Lab – Total metals digestion specified in procedure ACMM-8909	Microwave digester (Method described in procedure ACMM-8909)	NA

WIPP #	Site Equipment #	Site Description	Components	Software
3HM2	ID 356094	Analytical Chemistry Lab – Total metals digestion specified in procedure ACMM-8909	Microwave digester (Method described in procedure ACMM-8909)	NA
3HM3	ICP-4	Analytical Chemistry Lab – Total metals analysis specified in procedure ACMM-2900	Total metals analysis (Method described in procedure ACMM-2900)	J-YESS
3HM4	ICP-5	Analytical Chemistry Lab – Total metals analysis specified in procedure ACMM-2900	Total metals analysis (Method described in procedure ACMM-2900)	J-YESS
3HM5	CVAF-1	Analytical Chemistry Lab – Total metals analysis Hg specified in procedure ACMM-7802	Total metals analysis Hg specified in procedure ACMM-7802	Avalon
3HM6	CVAF-2	Analytical Chemistry Lab – Total metals analysis Hg specified in procedure ACMM-7802	Total metals analysis Hg specified in procedure ACMM-7802	Avalon
<b>Nondestructive Assay</b>				
3PA1	ASY-ASY-1001	Stored Waste Examination Pilot Plant (SWEPP) Assay System - Pan Assay System supplemented by a gamma spectroscopy measurement provided by the SGRS system in isotopic mode (PAN & SGRS Isotopic)	Passive-Active Neutron (PAN) Assay System	SAS/SGAP
3PA2	ASY-ASY-1002	Stored Waste Examination Pilot Plant (SWEPP) Assay System - Pan Assay System supplemented by a gamma spectroscopy measurement provided by the WAGS system in isotopic mode (PAN & WAGS Isotopic).	Passive-Active Neutron (PAN) Assay System	SAS/SGAP
3SG1	SPTR-SPTR-1001	Stored Waste Examination Pilot Plant (SWEPP) Assay System - SGRS system Absolute Mode	SWEPP Gamma-Ray Spectrometer (SGRS) System	SAP
3WA1	WAGS-WAGS-0000	Stored Waste Examination Pilot Plant (SWEPP) Assay System - WAGS system Absolute Mode	SWEPP Waste Assay Gamma Spectrometer (WAGS) System	GWAS
<b>Nondestructive Examination</b>				
3RR1	RTR-RTR-1001	Radiography of drums	RTR Unit - Standard setup - Mobile	NA
3RR2	RTR-RTR-0000	Radiography of drums	RTR Unit - Standard setup – Fixed	NA
<b>Coring</b>				
3SS1	W0096-563-EC-00	Argonne National Laboratory – West – Core sampling as specified in procedure HFEF-OI-6910	Core sampling (Method described in HFEF-OI-6910)	NA
<b>Gas Generation Testing</b>				
3GG1	GGTS-ANL-3501	Gas generation testing as specified in procedure TPR-1645	Online GC (Method described in procedure TPR-1645)	EZ Chrom 200, GGTS Excel Application
3GG2	GGTS-ANL-3502	Gas generation testing as specified in procedure TPR-1645	Online GC (Method described in procedure TPR-1645)	EZ Chrom 200, GGTS Excel Application

## INEEL CERTIFIED DOCUMENTS & PROCEDURES LIST

#	PROCEDURE NUMBER	TITLE
1.	ACLP 4.10	Determination of Method Detection Limits for Gas Analysis
2.	ACLP 4.20	Sample and QA Nomenclature Conventions for TWCP
3.	ACLP 4.25	Sample Receiving, Custody, and Storage
4.	ACLP 4.30	Standards Preparation, Documentation and Storage
5.	ACLP 4.40	Summa Canister Cleaning
6.	ACLP 4.45	Gas Transfer Manifold Systems
7.	ACMM-2900	Determination of Trace Elements by ICP Atomic Emissions Spectrometry
8.	ACMM-7802	Determination of Mercury by Cold Vapor Fluorescence Spectrophotometry
9.	ACMM-8909	Microwave Assisted Digestion of Homogeneous Solids
10.	ACMM-9260	VOCs by Gas Chromatography/Mass Spectrometry
11.	ACMM-9270	SVOCs by Gas Chromatography/Mass Spectrometry
12.	ACMM-9441	Determination of Nonhalogenated Volatile Organics by Gas Chromatography
13.	ACMM-9500	Sample Preparation for SVOCs and PCBs
14.	ACMM-9910	Analysis of Gas Samples for Alcohols and Ketones by GC/FID
15.	ACMM-9925	Analysis of Gas Samples for Hydrogen/Methane by Micro GC/TCD
16.	ACMM-9930	Analysis of Gas Samples for VOCs by GC/MS
17.	EDF-363	SWEPP Certified Waste Sampling Plan
18.	EDF-909	TRU Waste Sampling Plan for INEEL
19.	EDF-1892	Engineering Design File for Defining Characterization and Certification Data for Drums Overpacked in an SWB
20.	HFEF-OI-6810	Transuranic Report Inventory System (TRIPS)
21.	HFEF-OI-6862	TWCP Sample Storage and Shipment
22.	HFEF-OI-6890	Waste Characterization
23.	HFEF-OI-6910	TWCP Core Drilling Operations
24.	HFEF-OI-6921	TWCP Solid Sample Preparation
25.	MCP-196	Selection, Training, Indoctrination, and Qualification of Personnel Performing Audits
26.	MCP-535	Inspection and NDE Personnel Certification
27.	MCP-1756	Gas generation Test System Data Validation
28.	MCP-1757	Management Assessments for the INEEL TRU Waste Characterization Program
29.	MCP-1783	TRUPACT II Container Maintenance Program
30.	MCP-1785	TRIPS Data Management
31.	MCP-1800	Contact-Handled Transuranic Waste Certification
32.	MCP-1803	Configuration Control of RWMC Hardware/Software Computer Systems
33.	MCP-1812	Qualification Test Program
34.	MCP-1815	RWMC Data Generation Level Data Validation
35.	MCP-1819	TRUPACT II Receipt, Inspection, and Shipment
36.	MCP-2002	Analytical Chain-of-Custody
37.	MCP-2008	Analytical Data Recording, Review and Reporting
38.	MCP-2009	Analytical Software Control
39.	MCP-2011	Analytical Logbooks
40.	MCP-2391	Calibration Program
41.	MCP-2492	Standards and Calibration Lab Operations
42.	MCP-2502	Standards and Calibration Lab Calibration Intervals
43.	MCP-2520	QA Records Management
44.	MCP-2521	Site Project Data Base
45.	MCP-2527	DQO Reconciliation at SPO Level
46.	MCP-2528	Computer Software Control
47.	MCP-2529	Drum Data Review by the SQAQ
48.	MCP-2530	SQAQ Data Validation, Checklists and Summary
49.	MCP-2532	Independent Assessment

<b>INEEL CERTIFIED DOCUMENTS &amp; PROCEDURES LIST</b>		
<b>#</b>	<b>PROCEDURE NUMBER</b>	<b>TITLE</b>
50.	MCP-2533	Reports to Management
51.	MCP-2534	Level I Surveillances
52.	MCP-2536	Project Level Data Verification by the SPM
53.	MCP-2542	Preparation of Waste Profile Forms
54.	MCP-2544	INEEL WWIS Manual Data Transfer
55.	MCP-2546	Visual Examination Process
56.	MCP-2988	Confirmation, Resolution, and Re-evaluation of Acceptable Knowledge Information
57.	MCP-2989	Collection, Review, and Management of Acceptable Knowledge Documentation
58.	MCP-2990	Radioassay Total Uncertainty Process Using Modified Statistical Sample Approach
59.	MCP-2991	Radioassay Total Uncertainty Process Using Statistical Sampling Approach
60.	MCP-2992	QA Program Surveillances
61.	MCP-2993	TWCP Action Tracking and Trend Analysis
62.	MCP-2995	Project Level Electronic Data V and V By the SDVO
63.	MCP-2996	Electronic Data Review by the SDVO
64.	MCP-2997	SQAO Electronic Data Review Checklists and Summary
65.	MCP-9178	Training and Qualification
66.	MCP-9179	Document Preparation, Review, Approval, and Control
67.	MCP-9247	TWCP Graded Approach and Quality Level Assignment
68.	MCP-9258	TWCP Procurement
69.	NT-AP-01	TWCP Documents and Records Management
70.	NT-AP-03	ANL-W TWCP Data Generation Level Review
71.	NT-AP-04	QA Requirements Implementation
72.	NT-AP-05	TWCP Training Plan
73.	NT-AP-08	TWCP Data Input and QA Release for TRIPS
74.	NT-AP-09	TWCP VEE Functions and Process
75.	PLN-182	TRU Waste Characterization, Certification, and Transportation Quality Program Plan (QPP)
76.	PLN-190	Quality Assurance Project Plan (QAPjP)
77.	PLN-508	Quality Assurance Project Plan for Gas generation Testing Program
78.	PLN-577	INEEL TRUPACT II Authorized Methods for Payload (TRAMPAC) Control Compliance Plan
79.	PLN-579	Program Plan for Certification of INEEL Contact-Handled Stored Transuranic Waste
80.	PLN-582	TRIPS Software Configuration Management Plan
81.	PLN-583	TRIPS Software QA Plan
82.	PLN-584	TRIPS Software Verification and Validation Plan
83.	PLN-585	TRIPS Software Test Plan
84.	PLN-587	Training Implementation Plan for TWCP
85.	PLN-600	Analytical Laboratory Department QA Plan for the TWCP
86.	QTP-002	RTR System
87.	QTP-004	Passive-Active Neutron (PAN) Drum Assay System
88.	QTP-011	SWEPP Gamma-Ray Spectrometer Systems
89.	QTP-020	TRIPS Integrated Operational Test for the TRU Programs Characterization, Certification, and Payload Assembly Process
90.	QTP-021	RTR Digital Video Encoding Test
91.	QTP-027	Mobile RTR Trailer No. 1
92.	QTP-031	SWEPP Waste Assay Gamma Spectrometer (WAGS) Absolute System
93.	TPR-1572	Operating the RTR System
94.	TPR-1573	INEEL Passive Active Neutron Assay System
95.	TPR-1576	SWEPP Weight Station
96.	TPR-1584	Drum Venting Operations
97.	TPR-1588	SWEPP Gamma-Ray Spectrometer System



<b>INEEL CERTIFIED DOCUMENTS &amp; PROCEDURES LIST</b>		
<b>#</b>	<b>PROCEDURE NUMBER</b>	<b>TITLE</b>
98.	TPR-1625	Drum Dispositioning and Container Integrity
99.	TPR-1632	Transportation Certification Using TRIPS and WWIS
100.	TPR-1642	Needle Assembly
101.	TPR-1645	Gas Generation Testing in WMF-635
102.	TPR-1646	Gas Generation Test System Mobile Gas Analysis System Operation
103.	TPR-1648	TRUPACT II Payload Assembly Operation
104.	TPR-1649	TRUPACT II Loading Operation in WMF-618
105.	TPR-1652	Helium Leak Detector
106.	TPR-1657	Gas Generation Test System Chromatograph Three-Point Calibration
107.	TPR-1665	TRUPACT-II Payload Assembly Operation in WMF-635
108.	TPR-1666	TRUPACT-II Loading Operation in WMF-635
109.	TPR-1719	Calibration of SWEPP Radioassay Systems
110.	TPR-1728	Manual Drum Gas Sampling
111.	TPR-1768	SWEPP Waste Assay Gamma Spectrometer (WAGS) Absolute System

<b>Inactive or Cancelled Procedures</b>			
<b>#</b>	<b>Number</b>	<b>Title</b>	<b>Date</b>
1.	TPR-1654	SWEPP Waste Assay Gamma Spectrometer (WAGS) System - Canceled	May 18, 2002