

United States Government

Department of Energy

memorandum

 Carlsbad Field Office
 Carlsbad, New Mexico 88221


DATE: June 11, 2010

 REPLY TO
 ATTN OF: CBFO:NTP:DCG:MAG:10-0883:UFC 5900.00

SUBJECT: Certification Expansion of INL AMWTP to Include Tier 1 Approval of BN-510 Waste

TO: James R. Cooper, Acting Deputy Manager, Idaho Cleanup Project

The Carlsbad Field Office (CBFO) is expanding the certification of the Idaho National Laboratory (INL) Advanced Mixed Waste Treatment Project's (AMWTP) transuranic (TRU) waste program to include the Tier 1 baseline approval to add the Hanford TRU contact-handled (CH) legacy debris waste stream's MPFPD, RLM231ZD, RLM325D, and RLMPFPCD to the existing BN-510 Waste Stream at AMWTP. CBFO requested the Tier 1 change on March 2, 2010 (CBFO:NTP:CF:GS:10-0767:UFC 5822.00). EPA conducted a desk top evaluation and gave their approval on June 10, 2010, EPA Docket No. A-98-49, II-A4-127. Attachment 1 and Attachment 4 have been revised to reflect this approval.

The CBFO completed the annual recertification audit A-09-19 of the INL AMWTP TRU waste program on August 18-20, 2009, to evaluate the adequacy, implementation, and effectiveness of the AMWTP and continued compliance of AMWTP TRU waste characterization, and certification activities for contact-handled (CH) (S3000) homogeneous solids and (S5000) debris waste.

The audit team determined that the AMWTP TRU program was in compliance with the "Waste Analysis Plan" (WAP) of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the Quality Assurance Program Document (QAPD), and the Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WIPP WAC).

Based on the results of audit A-09-19 and the Tier 1 baseline approval to add the Hanford TRU CH legacy debris waste stream's MPFPD, RLM231ZD, RLM325D, and RLMPFPCD to the existing BN-510 Waste Stream at AMWTP, and the conditions and limitations provided by the New Mexico Environment Department (NMED) and the U.S. Environmental Protection Agency (EPA), the CBFO grants continued authority at the AMWTP for characterization and certification activities for CH homogeneous solids (S3000) and CH debris (S5000) wastes and sampling processes for CH homogeneous solids (S3000) and CH soils/gravel (S4000) as identified in Table 1.

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Table 1-Approved Waste Characterization Processes				
Characterization Process	S3000 Homogeneous solids		S5000 Debris	
	Newly generated	Retrievably- Stored	Newly generated	Retrievably- Stored
Acceptable Knowledge	N/A	Approved	Approved	Approved
Load Management	N/A	Approved	Approved	Approved
Data Validation & Verification (V&V)	Approved	Approved	Approved	Approved
Visual Examination (VE)	Approved	Approved	Approved	Approved
Solid Sampling Activities ¹	Approved	Approved	N/A	N/A
Headspace Gas Sampling & Analysis (both canister & online techniques)	Approved	Approved	Approved	Approved
Nondestructive assay (NDA) ²	Approved	Approved	Approved	Approved
Real-time Radiography (RTR)	Approved	Approved	Approved	Approved
WIPP Waste Information System (WWIS)	Approved	Approved	Approved	Approved

¹Solid Sampling Analysis is performed at the INL TWCP. Coring activities of soil/gravel (S4000) waste from other generator sites is approved, but is not certified to ship for disposal at WIPP.

²Nondestructive assay (NDA) of Newly generated S3000 waste is authorized for assaying using ONLY IWAS units Z-211-102 and Z-211-103.

TRU waste characterization and certification, using significantly revised or new processes, procedures, or systems must be evaluated by the CBFO prior to their implementation. Included in this memo are the following attachments:

- Attachment 1 describes the AMWTP certification program status,
- Attachment 2 contains the equipment certified at the site,
- Attachment 3 contains the certified CCP procedures, and
- Attachment 4 contains specific AMWTP waste characterization process elements that must be reported. These process elements are identified as Tier 1 changes and Tier 2 changes. The AMWTP shall not ship for disposal at WIPP any wastes affected by a Tier 1 process element change without prior CBFO approval, and AMWTP shall report Tier 2 changes to CBFO on a quarterly basis. AMWTP procedures shall be revised as necessary to incorporate this reporting and approval process.


 David C. Moody
 Manager

Attachment(s)

James R. Cooper

-3-

June 11, 2010

cc: w/attachments

V. Daub, CBFO	*ED
C. Gadbury, CBFO	ED
N. Castaneda, CBFO	ED
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A. Holland, CBFO	ED
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J. Edwards, EPA	ED
A. Perrin, EPA	ED
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J. Bearzi, NMED	ED
S. Zappe, NMED	ED
D. Kump, WTS	ED
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D. Hofer, WTS	ED
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CTAC Document Coordinator

WIPP Operating Record

CBFO M&RC

*ED denotes electronic distribution

AMWTP CERTIFICATION PROGRAM STATUS

The CBFO Director of the Office of the National TRU Program and the CBFO Quality Assurance Manager has evaluated the documentation supporting the compliance of the Advanced Mixed Waste Treatment Project (AMWTP) TRU waste program. Attachments 2 and 3 provide complete lists of certified processes, procedures, documents, and systems deployed at the AMWTP. Attachment 4 is the CH Tiering of TRU Waste Characterization Processes implemented by the AMWTP.

PROGRAM STATUS

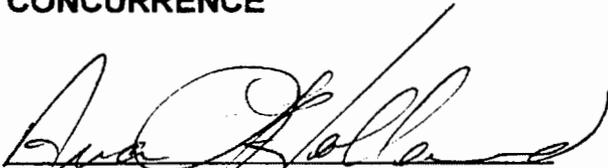
- All program elements remain complete.
- The following site documents are current and demonstrate how the CCP complies with the CBFO requirements.
 - **MP-TRUW-8.1, Revision 17** – *Certification Plan for INL Transuranic Waste*, (Approved April 1, 2009 - CBFO:NTP:CF:GS:09-0905:UFC 5822.00)
 - **MP-TRUW-8.2, Revision 11** – *Quality Assurance Project Plan*, (Approved August 29, 2008 - CBFO:NTP:CF:GS:08-0865:UFC5822.00).
- Certified Systems - see Attachment 2 for the complete list of certified systems used by the AMWTP.
- Standard operating procedures - see Attachment 3 for the complete list of certified CCP procedures used at the AMWTP.
- Tiering of TRU Waste Characterization Processes implemented by AMWTP (based on EPA Baseline Inspections) - see Attachment 4.
- AMWTP participated in the following performance demonstration programs (PDPs):
 - **HSG PDP** – Cycle 23A Memo CBFO:NTP:MRB:GS:09-0942:UFC 5822.00 dated May 4, 2009 approving analysis of VOCs in headspace gas samples using the GC/MS analytical method on the analytical system identified as Z-221-001-A.
 - **NDA PDP** – Cycle 16A Memo CBFO:NTP:MRB:GS:09-1034:UFC 5822.00 dated June 25, 2009 approving analysis of TRU waste drums using the DAS-100 and DAS-101 with a limitation that these two systems cannot be used to characterize sludge-type waste. DAS-102 and DAS-103 are approved without NDA PDP performance imposed restrictions.

- CBFO requested the Tier 1 change on March 2, 2010 (CBFO:NTP:CF:GS:10-0767:UFC 5822.00).
 - EPA conducted a desk top evaluation and gave their approval on June 10, 2010, EPA Docket No. A-98-49, II-A4-127.
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- CBFO conducted a recertification Audit A-09-19 of the AMWTP on August 18-20, 2009
 - No CARs were issued.
 - Interim Audit Report was issued on September 17, 2009.
 - Final Audit Report was issued to NMED on November 23, 2009.
 - NMED issued approval of the Final Audit Report on January 8, 2010.
 - EPA concurred with the CBFO draft recertification on February 17, 2010.
- EPA Inspection of CBFO QA Audit A-09-19 August 19-20, 2009.
 - EPA Inspection Report issued October 15, 2009.
- EPA concurred with the CBFO draft expansion certification for the Tier 1 approval adding Hanford CH debris waste to the BN-510 waste stream on June 11, 2010.

RECOMMENDATION

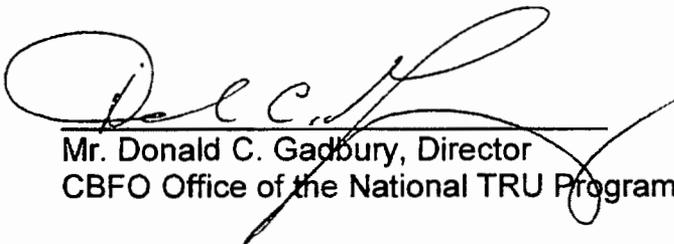
The recommendation to the CBFO Manager is for AMWTP to add the Hanford CH TRU legacy waste from the Plutonium Finishing Plant (PFP) area to the existing AMWTP BN-510 waste stream in their certified program and to continue the AMWTP authority for characterization and certification of contact-handled (CH) homogeneous solids (S3000) and CH debris (S5000) wastes and sampling processes of S3000 and S4000 (soils/gravel) as identified in the Table 1 of the memorandum. Attachments 2 and 3 list the systems and procedures that constitute the bounds of this authority. Attachment 4 is the CH Tiering of TRU Waste Characterization Processes implemented by AMWTP.

CONCURRENCE



Ms. Ava Holland, Director
Quality Assurance

6/10/10
Date



Mr. Donald C. Gadbury, Director
CBFO Office of the National TRU Program

6-10-10
Date

INL AMWTP LIST OF CERTIFIED EQUIPMENT AND PROCESSES

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
HEADSPACE GAS					
9HG4	Z-221-001A	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System PDP ID # CTI-HGAS-A-001 (Approved Cycle 23A) Method described in procedure INST-OI-43	Agilent 5973N Network Mass Selective Detector – Unit 001	HGAS Software, Version 1.23	N/A
NONDESTRUCTIVE ASSAY					
9DA1	Z-211-102	Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums DAS –102 - PDP Registration # AM01/AMN1 (Approved Cycle 16A) Method described in procedure INST-OI-14	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	NDA 2000 Canberra's Genie 2000 Multi-Group Analysis (MGA) Multi-Group Analysis-Uranium (MGA-U)	The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054 The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.
9DA2	Z-211-103	Canberra Integrated Waste Assay System (IWAS) for assay and isotopics on 55-gallon and 83/85-gallon drums DAS-103 - PDP Registration # AM02/AMN2 (Approved Cycle 16A)	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die- 	NDA 2000 Canberra's Genie 2000 Multi-Group Analysis (MGA)	The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054 The determination of TMU for

INL AMWTP LIST OF CERTIFIED EQUIPMENT AND PROCESSES

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
		Method described in procedure INST-OI-14	<ul style="list-style-type: none"> away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	Multi-Group Analysis- Uranium (MGA-U)	the IWAS unit is documented in CI-IDA-NDA-0055, "Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems", Revision 1, July 30, 2003.
9DA3	Z-390-100	<p>Canberra Integrated Waste Assay System (IWAS) - DAS3 – 55 gallon drums</p> <p>DAS-100 – PDP Registration # AM03/AMN3 (Approved Cycle 16A – not approved for sludge-type waste)</p> <p>Method described in INST-FOI-01</p>	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	<p>NDA 2000</p> <p>Canberra's Genie 2000</p> <p>Multi-Group Analysis (MGA)</p> <p>Multi-Group Analysis- Uranium (MGA-U)</p>	<p>The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054</p> <p>The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.</p>

INL AMWTP LIST OF CERTIFIED EQUIPMENT AND PROCESSES

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DA4	Z-390-101	Canberra Integrated Waste Assay System (IWAS) - DAS4 – 55 gallon drums DAS-101 – PDP Registration # AM04/AMN4 (Approved Cycle 16A – not approved for sludge-type waste) Method described in INST-FOI-01	<ul style="list-style-type: none"> ➤ Broad Energy Germanium (BEGe) gamma detectors ➤ 122 helium-3 tubes used in passive neutron coincidence counting modality and the active neutron differential die-away modality ➤ Cf-252/Cs-137 Add-A-Source (AAS) correction source ➤ 14 MeV neutron generator ➤ Fast Neutron Detector Packs (FNDP) 	NDA 2000 Canberra's Genie 2000 Multi-Group Analysis (MGA) Multi-Group Analysis- Uranium (MGA-U)	The calibration of IWAS system was verified and documented in the site acceptance reports CI-IDA-NDA-0051 through CI-IDA-NDA-0054 The determination of TMU for the IWAS unit is documented in CI-IDA-NDA-0055, Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Revision 1, July 30, 2003.
NON-DESTRUCTIVE EXAMINATION					
9RR1	Z-213-101	Real Time Radiography System – 55 gallon drums, 83 gallon drums and SWBs Method described in INST-OI-12 and INST-OI-81	RTR System	Waste Tracking System (WTS)	N/A
9RR2	Z-213-106	Real Time Radiography System – 55 gallon drums, 83 gallon drums and SWBs Method described in procedure INST-OI-12 and INST-OI-81	RTR System	Waste Tracking System (WTS)	N/A
SOLIDS					

INL AMWTP LIST OF CERTIFIED EQUIPMENT AND PROCESSES

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9DC1	Z-250-802	Drum Coring and Sample Collection Glove Box Method – BN-MDC Method described in procedure INST-OI-16, INST-OI-73, and INST-OI-75	Drum Coring and Sample Collection Glove Box	Waste Tracking System (WTS)	N/A
VISUAL EXAMINATION					
9VE2	N/A	Visual Examination (in lieu of RTR) (VEC) Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A
9VE3	N/A	Newly Generated Waste Visual Examination Closure (VNC) Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A
9VE5	N/A	Visual Examination (in lieu of RTR) (VEC) Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE6	N/A	Newly Generated Waste Visual Examination Closure (VNC) Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE7	N/A	Box Line Visual Examination (VEB) – Box to drum repackaging Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A
9VE8	N/A	Box Line Visual Examination (VEB) – Drum to new drum repackaging Method described in INST-FOI-17	N/A	Waste Tracking System (WTS)	N/A

INL AMWTP LIST OF CERTIFIED EQUIPMENT AND PROCESSES

WIPP #	Site Equipment #	Equipment Description	Components	Software	NDA Calibrated Range, Operating Range and TMU
9VE10	N/A	Box Line Visual Examination (VEB) – Drum to new drum repackaging Method described in INST-OI-34	N/A	Waste Tracking System (WTS)	N/A

INL AMWTP DEACTIVATED EQUIPMENT LIST			
WIPP #	Site Equipment #	Equipment Description	Date Deactivated
HEADSPACE GAS			
9HG1	Z-220-001A	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit A	8/6/06
9HG2	Z-220-001B	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit B	8/6/06
9HG3	Z-220-001C	Nuclear Filter Technology Drum Vent System – Mass Spectrometer, Unit C	8/6/06
9HG7	Z-221-001D	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	Currently being used for spare parts
9HG6	Z-221-001C	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	4/14/08
9HG5	Z-221-001B	Consonant Technology Inc. (CTI) –Gas Chromatography/Mass Spectrometry (GC/MS) System	4/14/08
Visual Examination			
9VE9	N/A	Box Line Visual Examination (VEB) – Drum to New Drum Repackaging	7/8/09

AMWTP LIST OF CERTIFIED PROCEDURES		
#	Procedure Number	Procedure Title
1.	CI-IDA-NDA-0035	Calibration Verification & Confirmation Procedure for the Integrated Waste Assay (IWAS) at AMWTP, Canberra Industries
2.	CI-IDA-NDA-0055	Total Measurement Uncertainty for the AMWTP Integrated Waste Assay Systems, Canberra Industries
3.	RPT-TRUW-03	Drum Assay Technical Review Report
4.	INST-CD&M-11.1.2	Facility Modification Proposal Preparation
5.	INST-CD&M-11.2.1	Software Version Control
6.	INST-CD&M-11.2.2	Software Inventory Classification
7.	INST-CD&M-11.2.3	System Data Change Requests
8.	INST-CMNT-10.5.1	Calibration and Control of Measuring and Test Equipment
9.	INST-CMNT-10.14.1	Testing In-Plant and Process Instrumentation
10.	INST-FOI-01	In-Plant Drum Assay Operations
11.	INST-FOI-17	Facility Visual Examination Operations
12.	INST-OI-09	Retrieval Enclosure Waste Container Extraction
13.	INST-OI-11	Waste Container Handling
14.	INST-OI-12	Real-Time Radiography Operations (Drum)
15.	INST-OI-14	Drum Assay Operations
16.	INST-OI-16	Drum Coring Operations
17.	INST-OI-34	Non-Facility Visual Examination Operations
18.	INST-OI-43	HGAS Sampling and Analysis Operations
19.	INST-OI-45	Drum Filter Installation
20.	INST-OI-50	WMF-615 Filter Insertion Operation
21.	INST-OI-73	Manual Drum Coring Operations
22.	INST-OI-75	Container-in-Container Sampling
23.	INST-OI-81	Real-Time Radiography Operations (For WIPP Certification Boxes)
24.	INST-TRUW-8.1.1	Drum Assay Post Maintenance Calibration & Verification
25.	MP-CD&M-11.1	Change Control
26.	MP-CD&M-11.2	Software Quality Assurance
27.	MP-CMNT-10.5	Calibration of Measuring and Test Equipment Program
28.	MP-CMNT-10.14	In-Plant and Process Instrumentation Testing Program
29.	MP-DOCS-18.1	Developing Written Work Instructions
30.	MP-DOCS-18.2	Records Management
31.	MP-DOCS-18.3	Developing Management Procedures
32.	MP-DOCS-18.4	Document Control
33.	MP-M&IA-17.1	Management Assessment
34.	MP-M&IA-17.2	Independent Assessment
35.	MP-M&IA-17.3	Surveillances
36.	MP-PCMT-15.1	Acquisition of Materials and Services
37.	MP-PCMT-15.21	Materials Management
38.	MP-Q&SI-5.1	Investigation and Root Cause Analysis

AMWTP LIST OF CERTIFIED PROCEDURES		
#	Procedure Number	Procedure Title
39.	MP-Q&SI-5.3	Corrective Action
40.	MP-Q&SI-5.4	Identification of Nonconforming Conditions
41.	MP-Q&SI-5.6	Graded Approach
42.	MP-Q&SI-5.8	Qualifying Supply Chain Inspectors, Auditors, Lead Auditors and Technical Specialists
43.	MP-RTQP-14.4	Personnel Qualification and Certification
44.	MP-RTQP-14.6	Job Analysis
45.	MP-RTQP-14.16	Training Program Evaluation
46.	MP-RTQP-14.19	Training Records Administration
47.	MP-RTQP-14.20	Training Implementation Matrix
48.	MP-TRUW-8.1	Certification Plan for INL Transuranic Waste
49.	MP-TRUW-8.2	Quality Assurance Project Plan
50.	MP-TRUW-8.5	TRU Waste Certification
51.	MP-TRUW-8.8	Level I Data Validation
52.	MP-TRUW-8.9	Level II Data Validation
53.	MP-TRUW-8.11	Data Reconciliation
54.	MP-TRUW-8.12	Waste Receipt and Shipping Inspection
55.	MP-TRUW-8.13	Collection, Review, and Management of Acceptable Knowledge Documentation
56.	MP-TRUW-8.14	Preparation of Waste Stream Profile Forms
57.	MP-TRUW-8.17	Co-located Core Sampling Control Charts
58.	MP-TRUW-8.25	Random Selection of Containers for Headspace Gas and Solids Sampling Analysis
59.	MP-TRUW-8.26	Reports to Management
60.	MP-TRUW-8.34	WIPP Sample Shipments

AMWTP LIST OF CANCELLED/DEACTIVATED PROCEDURES			
#	Procedure Number	Procedure Title	Deactivation Date
1.	MP-TRUW-8.6	Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH TRAMPAC) for HalfPACT (Incorporated into MP-TRUW-8.3)	12/04
2.	INST-OI-44	Sampling Port Installation	1/26/06
3.	INST-OI-48	Electronic TRUPACT-II Operations	2/2/06
4.	INST-CD&M-11.1.1	Facility Modification Screening	6/5/06
5.	MP-PCMT-15.4	Evaluation of Proposals (Superceded by MP-PCMT-15.21)	6/30/06
6.	MP-CMNT-10.3	Supply Chain Management (Superceded by MP-PCMT-15.21)	7/12/06
7.	MP-PCMT-15.6	Acceptance of Items and Services (Superceded by MP-PCMT-15.21)	7/12/06
8.	MP-Q&SI-5.7	Quality Inspections	7/12/06
9.	INST-OI-18	Gas Generation Testing Operations	8/15/06
10.	MP-TRUW-04-IM	TRU Waste Program Procedures Matrix for DOE-CBFO QAP	11/2/06
11.	INST-OI-49	Electronic Payload Assembly	12/11/06
12.	INST-TRUW-8.2.1	HSG Calibration	12/11/06
13.	MP-TRUW-8.19	RTR/VE Drum Selection	1/23/07
14.	MP-TRUW-8.16	WWIS Data Transfer (Incorporated into MP-TRUW-8.5)	7/3/07
15.	INST-OI-13	Drum Vent/Headspace Gas Sample Operations	8/07
16.	INST-OI-20	TRUPACT-II Operations	4/08
17.	INST-OI-21	Payload Assembly	4/08
18.	INST-OI-52	Re-Lidding and Over-pack Reconfiguration Operations	3/08
19.	MP-TRUW-8.3	Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)	3/08
20.	MP-TRUW-8.4	Quality Assurance Project Plan for Gas Generation Testing Program	3/08
21.	MP-CMNT-10.10	TRUPACT-II Maintenance Program	4/08
22.	MP-TRUW-8.27	CH-TRUCON Management	3/08
23.	MP-TRUW-8.37	Long-Term Objective for Unified Flammable Gas Determination	3/08
24.	MP-PCMT-15.7	Vendor Qualification and Performance Evaluation	12/18/08

**Tiering of TRU Waste Characterization Processes Implemented by AMWTP
 (Based on March 28-30, 2006 EPA Baseline Inspection No. EPA-AMWTP-03.06-08)
 DOCKET # A-98-49; II-A4-66**

WC Process Elements	AMWTP WC Process Specific T1 Changes	AMWTP WC Process Specific T2 Changes	AMWTP General T2 Changes
AK including Load Management	Any new waste category group. Load management of any unapproved waste stream Changes to WWIS algorithms specific to load management.	Waste Stream Profile Forms including updates or additions to waste stream(s) within an approved waste category. Changes in load management status of approved waste stream(s).	Changes to site procedures requiring CBFO approvals and other changes.
NDA	New equipment or physical modifications to approved equipment Changes to approved calibration range for approved equipment.	Changes to software for approved equipment. Changes to operating range upon CBFO approval.	Changes to site procedures requiring CBFO approvals and other changes.
RTR	N/A	New equipment or changes to approved equipment.	Changes to site procedures requiring CBFO approvals and other changes.
VE and VET	Changes in vendor performing VE and/or VET	Addition of new waste category. Addition of new procedure or site equipment identifier	Changes to site procedures requiring CBFO approvals and other changes.
WWIS	N/A	N/A	Changes to site procedures requiring CBFO approvals and other changes.

AK Tiers

Tier 1 AK changes that will require EPA review and approval prior to implementation and apply to any new waste category not evaluated during the baseline inspection include the following:

- Categories of waste not approved under this baseline (e.g., soils)
- Identification of wastes from sources other than Mound, RFETS, Battelle Columbus, Bettis and Hanford legacy debris.
- Implementation of load management for waste not approved under this baseline

Tier 2 AK changes that do not require EPA approval prior to implementation but require reporting and submitting documentation discussing changes include the following:

- Changes made to AK procedure(s) that require CBFO approval
- Complete waste stream data packages that include updates or additions to the WSPF, CIS# for waste streams within approved waste categories; and summaries of radiological data for those containers included on the CIS drum list
- Implementation of procedures and related documentation that formalize NDA-AK communication requirements
- Any waste identified outside of the waste profiles included in the 2002 TWBIR, when applicable
- AK accuracy reports, prepared annually at a minimum

NDA Tiers

Tier 1 NDA changes that will require EPA review and approval prior to implementation include the following:

- New NDA equipment¹
- Physical modifications to approved equipment²
- Extension or changes to an approved calibration range(s) for approved equipment³

Tier 2 NDA changes that do not require EPA approval prior to implementation but require reporting and submitting documentation discussing changes by AMWTP include the following:

- Changes to software for approved equipment
- Changes to the approved operating range(s) of approved NDA systems upon CBFO approval
- Changes to procedures that require CBFO approval

¹New NDA equipment refers to a system or component not previously evaluated by EPA. Specifically, this is defined as a physically distinct or different system or apparatus: an assay system that is reported to be the equivalent of or identical to a previously approved system but which has not been formally inspected and approved by EPA is a new system and must be approved by EPA prior to implementation to characterize WIPP wastes.

²Changes to existing NDA equipment include all changes and/or modifications to approved equipment that have the potential to affect the quality of NDA data used for the purposes of WC and/or waste isolation. This does not include minor changes or safety-related changes (e.g., addition of hand rails) that do not have the potential to affect WC data.

³Extension or changes to a system's approved calibration range include those changes that affect the determination of disintegration rate (activity) or physical characteristics (matrix) of any of the four NDA systems proposed for approval during this inspection

RTR Tiers

No **Tier 1 RTR** changes are assigned at this time.

Tier 2 RTR changes that do not require EPA approval prior to implementation but require reporting and submission of documentation discussing changes by AMWTP include the following:

- New RTR equipment or modifications to approved equipment
- Changes made to RTR procedure(s) that require CBFO approval

VET Tiers

Tier 1 VET change assigned at this time includes:

- Changes in vendor performing VET.

Tier 2 VET changes that do not require EPA approval prior to implementation but require reporting and submitting documentation include the following:

- Changes made to VET procedure(s) that require CBFO approval
- Addition of new waste category
- Addition of new procedure or site equipment identifier

VE Tiers

Tier 1 VE changes assigned at this time includes:

- Changes in vendor performing VE

Tier 2 VE changes that do not require EPA approval prior to implementation but require reporting and submitting documentation include the following:

- Changes made to VE procedure(s) that require CBFO approval
- Addition of new waste category
- Addition of new procedure or site equipment identifier

WWIS Tiers

Tier 1 WWIS changes that require EPA review and approval prior to implementation include the following:

- Changes to WWIS algorithms specific to load management

Tier 2 WWIS changes that do not require EPA approval prior to implementation but require AMWTP to report and submit documentation discussing changes include the following:

- Changes made to WWIS procedure(s) that require CBFO approval
- Changes in the load management status of approved waste category(s)