

United States Government

Department of Energy

memorandum

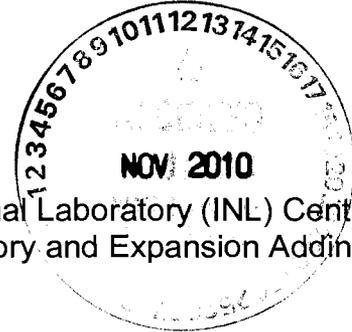
Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: November 12, 2010

REPLY TO
ATTN OF: CBFO:NTP:JRS:GS:10-2001:UFC 5900.00

SUBJECT: Recertification of the CH and RH Activities at Idaho National Laboratory (INL) Central Characterization Project (CCP) and INL Analytical Laboratory and Expansion Adding ID-RTC-S3000 and IN-ID-NRF-153

TO: J. Cooper, DOE-ID
M. Farok Sharif, WTS



The Carlsbad Field Office (CBFO) completed the annual recertification audit of the Central Characterization Project (CCP) contact-handled (CH) and remote-handled (RH) TRU waste program deployed at Idaho National Laboratory Central Characterization Project (herein after referred to as INL-CCP). Audit A-10-17 of the INL Analytical Laboratory and Audit A-10-16 were conducted on June 8-10, 2010, to evaluate the adequacy, implementation, effectiveness and continued compliance of the waste characterization and certification activities for CH and RH solids (S3000), soils/gravel (S4000), and debris (S5000) waste at the INL-CCP.

The CBFO conducted Surveillance S-10-33 of the INL-CCP Headspace Gas Waste Sampling processes on July 27, 2010. The CCP Quality Assurance Program (QAP) was audited during Audit A-10-11 on March 2-4, 2010 in Carlsbad, New Mexico. CCP CH and RH transportation activities were evaluated in Carlsbad, New Mexico on September 21-23 during Audit A-10-25.

The U.S. EPA submitted their approval on the CBFO Tier Request of RH TRU solids Waste Stream ID-RTC-S3000 from Idaho National Laboratory on November 1, 2010, EPA DOCKET NO: A-98-49; II-A4-137. Surveillance S-10-22 was conducted to evaluate the visual examination (VE) characterization process performed by the INL/CCP for waste stream ID-RTC-S3000 on March 3, 2010. The Surveillance Report was issued on March 11, 2010.

The U.S. EPA submitted their approval on the CBFO Tier request of the RH TRU debris Waste Stream IN-ID-NRF-153 from Idaho National Laboratory on November 1, 2010, EPA DOCKET NO: A-98-49; II-A4-135.

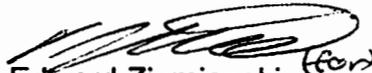


The audit team determined from the above audits and surveillances that the INL-CCP TRU programs were in compliance with the Waste Analysis Plan (WAP) of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), the Quality Assurance Program Document (QAPD), the Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WIPP WAC), and the CH and RH TRAMPAC, RH TRU 72B Safety Analysis Report (SAR), TRUPACT-II Certification of Compliance, Remote-Handled Transuranic Waste Characterization Program Implementation Plan (WCPIP). The audit team determined that the quality assurance programs, processes and procedures/documents were effectively implemented and effective.

Based on the results of Audits A-10-16, A-10-17, A-10-11, A-10-25 and S-10-33, S-10-22 and conditions and limitations provided by the New Mexico Environment Department (NMED) and the U.S. Environmental Protection Agency (EPA), the CBFO is authorizing INL-CCP to continued authority at the INL-CCP for characterization, certification, and transportation activities for CH and RH solids (S3000), soils/gravel (S4000), and debris (S5000) waste as identified in Table 1.

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. Included in this memo are the following attachments:

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


Edward Ziemianski (for)
Acting Manager

Attachment(s)

cc: w/attachments

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S. Percy, Stoller	ED

CTAC Document Coordinator
WIPP Operating Record, MS: 452-09
CBFO M&RC

*ED denotes electronic distribution

Table 1 – Approved Contact-Handled Waste Characterization Processes for INL-CCP

Characterization Process	CH S3000 Homogeneous Solids		CH S4000 Soils/gravel		CH S5000 Debris	
	Newly generated	Retrievably-stored	Newly generated	Retrievably-stored	Newly generated	Retrievably-stored
Acceptable Knowledge	APPROVED ⁴	APPROVED	APPROVED ⁴	N/A	APPROVED ⁴	APPROVED
Load Management	APPROVED ^{1, 4}	APPROVED ¹	APPROVED ^{1, 4}	N/A	APPROVED ^{1, 4}	APPROVED ¹
Data Validation & Verification (V&V)	APPROVED	APPROVED	APPROVED	N/A	APPROVED	APPROVED
Visual Examination ³	APPROVED ⁴	N/A	APPROVED ⁴	N/A	APPROVED ⁴	N/A
Solids sampling	APPROVED (ARP)	APPROVED ²	APPROVED (ARP)	N/A	N/A	N/A
Headspace Gas Sampling (SUMMA)	N/A	N/A	N/A	N/A	APPROVED	APPROVED
Nondestructive assay (NDA)	APPROVED ⁴	APPROVED	APPROVED ⁴	N/A	APPROVED ⁴	APPROVED
Real-time Radiography (RTR)	N/A	APPROVED	N/A	N/A	N/A	APPROVED
Dose-to-Curie (DTC)	N/A	N/A	N/A	N/A	N/A	N/A
WIPP Waste Information System (WWIS)	APPROVED ⁴	APPROVED	APPROVED ⁴	N/A	APPROVED ⁴	APPROVED
INL LABORATORIES UNDER CCP Program						
Solids Analysis	APPROVED	APPROVED	APPROVED	APPROVED	N/A	N/A
Headspace Gas Analysis (canister)	N/A	N/A	N/A	N/A	APPROVED	APPROVED

¹Debris and solid waste from AMWTP characterized by INL-CCP may not be load managed with waste characterized by the AMWTP contractor.
²Solids sampling is performed by AMWTP.
³VE of Records is not approved by NMED based on August 4, 2009 letter based on A-09-08.
⁴Approved Pit 4, ARP-I & section of ARP-II; Pit 6, ARP-II; ARP-III (Pit 6) and ARP-IV (Pit 5).

Table 1 – Approved Remote-Handled Waste Characterization Processes for INL-CCP

Characterization Process	RH S3000 Homogeneous Solids		RH S4000 Soils/gravel		RH S5000 Debris	
	Newly Generated	Retrievably-Stored	Newly Generated	Retrievably-Stored	Newly Generated	Retrievably-Stored ^{1, 5, 6, 7, 8}
Acceptable Knowledge	N/A	N/A	N/A	N/A	N/A	APPROVED
Load Management	N/A	N/A	N/A	N/A	N/A	N/A
Data Validation & Verification (V&V)	N/A	N/A	N/A	N/A	N/A	APPROVED
Visual Examination ³	APPROVED ⁴	APPROVED ⁴	APPROVED ⁴	APPROVED ⁴	APPROVED ⁴	APPROVED ^{2,4}
Solids sampling	N/A	N/A	N/A	N/A	N/A	N/A
Headspace Gas Sampling (SUMMA)	N/A	N/A	N/A	N/A	N/A	APPROVED
Nondestructive assay (NDA)	N/A	N/A	N/A	N/A	N/A	N/A
Real-time Radiography (RTR)	N/A	N/A	N/A	N/A	N/A	APPROVED
Dose-to-Curie (DTC) ⁵	N/A	N/A	N/A	N/A	N/A	APPROVED ⁶
WIPP Waste Information System (WWIS)	N/A	N/A	N/A	N/A	N/A	APPROVED
INL LABORATORIES UNDER CCP Program						
Solids Analysis	N/A	N/A	N/A	N/A	N/A	N/A
Headspace Gas Analysis (canister)	N/A	N/A	N/A	N/A	APPROVED	APPROVED

¹Tier 1 605 containers on January 12, 2007. Tier 1 56 waste containers from K Cell debris waste on January 2008.

²Tier 1 of VE of audio/video media process used for a total of 70 retrievably-stored RH debris waste drums included in batch data reports (BDRs) RHINLVE060001, RHINLVE060002, RHINLVE060003, and RHINLVE060004 on January 25, 2007

³VE of Records is not approved by NMED based on August 4, 2009 letter based on A-09-08.

⁴Tier 1 approval of the visual examination technique (VET) to characterize RH TRU S3000, S4000, and S5000 waste categories at INL on September 2009.

⁵Tier 1 approval to include the addition of 12 containers to RH Waste Stream ID-ANLE-S5000; a new RH Waste Stream ID-HFEF-S5400-RH, Lot 1A with 28 casks; and 8 containers of retrievably stored remote-handled debris waste from Waste Stream ID-MFC-S5400-RH on January 2010.

⁶Tier 1 approval to include a new RH Waste Stream ID-INTEC-RH consisting of 2 30-gallon drums overpacked into 55-gallon drums and collection and analysis of RH TRU debris samples by INTEC laboratory for the purpose of supporting radionuclide-specific scaling factors on August 2010.

⁷Tier 1 approval to include RH Waste Stream ID-HFEF-S5400-RH, Lot 1B cans on August 2010.

⁸Tier 1 approvals to include RH Waste Streams Adding ID-RTC-S3000 (solids) and IN-ID-NRF-153 (debris) on November 1, 2010.

CENTRAL CHARACTERIZATION PROJECT AT IDAHO NATIONAL LABORATORY CERTIFICATION PROGRAM STATUS

The CBFO Director of the Office of the National TRU Program and the CBFO Quality Assurance Manager have evaluated the documentation supporting the compliance of the Central Characterization Project (CCP) TRU waste program deployed at the Idaho National Laboratory (INL). Attachments 2 and 3 provide complete lists of certified processes, procedures, documents, and systems deployed at the INL-CCP. Attachment 4 is the CH and RH Tiering of TRU Waste Characterization Processes implemented by the CCP at INL.

PROGRAM STATUS

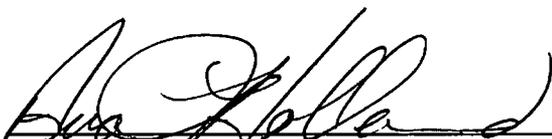
- All program elements remain complete.
- The following site documents are current and demonstrate how the CCP complies with the CBFO requirements.
 - **QAPJP – CCP-PO-001, Revision 18 - CCP Transuranic Waste Characterization Quality Assurance Project Plan** (Approved June 29, 2010 – CBFO:NTP:CF:GS:10-1422:UFC 5900.00).
 - **WCP - CCP-PO-002, Revision 24 - CCP Transuranic Waste Certification Plan** (Approved June 29, 2010 – CBFO:NTP:NC:GS:10-1428:UFC 5900.00).
 - **QAP - Section 4.0 of CCP-PO-002.**
 - **CCP CH-TRAMPAC – CCP-PO-003, Revision 11, CCP Transuranic Authorized Method for Payload Control** (Approved June 3, 2009 - CBFO:NTP:CF:GS:09-1335:UFC 5900.00)
 - **RH-TRAMPAC – CCP-PO-505, Revision 0, CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control** (CBFO:NTP:CF:GS:06-1355:UFC 5900.00 dated September 20, 2006)
- Certified Systems - see Attachment 2 for the complete list of certified systems used by the CCP at the INL.
- Standard operating procedures - see Attachment 3 for the complete list of certified CCP procedures used at the INL.
- Tiering of TRU Waste Characterization Processes implemented by CCP at INL (based on EPA Baseline Inspections) - see Attachment 4.

- CCP audited and current performance demonstration programs (PDPs):
 - **NDA PDP** – Cycle B9A Memo CBFO:NTP:MRB:GS:09-2057:UFC:5900.00 dated December 14, 2009 approved for radioassay using the SuperHENC for SWBs and 100-gallon drums (IN05/INN2).
 - **NDA PDP** – Cycle 17A Memo CBFO:NTP:MRB:GS:10-1457:UFC 5822.00 dated July 26, 2010 approving for analysis of TRU waste drums using the SGRS (IN04/ING3), the WAGS (IN03/ING2), using the SuperHENC (IN05/INN2), except for sludge-type or other uncalibrated-for matrix type drums; using the HENC (IN01/INN1).
 - **HSG PDP** – Cycle 24A Memo CBFO:NTP:MRB:GS:10-0864:UFC 5822.00 dated May 27, 2010 approving for analysis of VOCs in headspace gas samples using the GC/MS and the GC for methanol (GCMS-F, GCMS-H, GC-1, GC-2 and GC-7).
 - **RCRA PDP** – Cycle 17A (INL CCP) – CBFO:NTP:MRB:GS:10-0773:UFC 5822.00 dated March 10, 2010 approving:
 - **Approved for the analysis of metals** in solidified waste samples by the methods CCP-TP-183 and CCP-TP-182 (for all metals except mercury) and CCP-TP-181 (for mercury).
 - **Approved for the analysis of aqueous extractable VOCs** (including acetone, ethyl ether, methyl ethyl ketone, and pyridine) in solidified waste samples by the method identified as CCP-TP-186.
 - **Approved for the analysis of purgeable VOCs** in solidified waste samples by the method identified as CCP-TP-184.
 - **Approved for the analysis of SVOCs** (including 1,4-dichlorobenzene, and 1,2-dichlorobenzene) in solidified waste samples by the methods identified as CCP-TP-187 and CCP-TP-185.
- CBFO conducted a recertification Audit A-10-16 of the INL CCP on June 8-10, 2010.
 - CAR 10-036 was issued on June 18, 2010.
 - CAR 10-036 was closed on July 29, 2010.
 - Interim Audit Report was issued on June 28, 2010.
 - Final Audit Report was issued to NMED on September 9, 2010.
 - NMED issued approval on October 20, 2010.
- CBFO conducted a recertification Audit A-10-17 of the INL Analytical Laboratories CCP on June 8-10, 2010.
 - Interim and Final Audit Report was issued to NMED on July 16, 2010.
 - NMED issued approval on August 30, 2010.

- CBFO requested a Tier 1 change adding RH TRU solids Waste Stream ID-RTC-S3000 on February 8, 2010.
 - EPA approval issued on November 1, 2010.
- Surveillance S-10-22 was conducted to evaluate the visual examination (VE) characterization process performed by the INL/CCP for waste stream ID-RTC-S3000 on March 3, 2010.
 - The Surveillance Report was issued on March 11, 2010.
- CBFO requested a Tier 1 change adding RH TRU solids Waste Stream IN-ID-NRF-153 on February 8, 2010.
 - EPA approval issued on November 1, 2010.
- CBFO conducted a Quality Assurance Program Audit A-10-11 on March 2-4, 2010.
 - Audit Report was issued on March 16, 2010.
- CBFO conducted a Surveillance S-10-33 of the INL CCP Headspace Gas Waste Sampling processes on July 27, 2010.
 - Surveillance Report was issued on August 20, 2010.
- CBFO conducted CH and RH Transportation Audit A-09-27 on September 29-October 1, 2009.
 - Audit Report was issued on October 14, 2009.
- EPA concurred with this CBFO recertification on November 10, 2010.

RECOMMENDATION

The recommendation to the CBFO Manager is to continue the CCP authority for characterization, certification, and transportation of contact-handled (CH) and remote-handled (RH) homogeneous solids (S3000), soils/gravel (S4000), debris (S5000) waste at the INL-CCP 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 and RH Tiering of TRU Waste Characterization Processes implemented by the CCP at INL.

CONCURRENCE

Ms. Ava Holland, Director
Quality Assurance

11/10/10
Date



J. R. Stroble, Director
CBFO Office of the National TRU Program

11-10-10
Date

LIST OF CERTIFIED EQUIPMENT AND PROCESSES AT INL/CCP					
WIPP WWIS #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
Non-Destructive Assay (NDA)					
14SHC1	SuperHENC	Super High Efficiency Neutron Counter (SuperHENC) Operating Procedure CCP-TP-146	<input type="checkbox"/> (1) HPGe Detector <input type="checkbox"/> (260) ³ He Tubes <input type="checkbox"/> Neutron Assay Chamber <input type="checkbox"/> Gamma Assay Area with rotator <input type="checkbox"/> Cf-252 add-a-source assembly	<input type="checkbox"/> SUPRHENC.EXE <input type="checkbox"/> PC-FRAM (fixed energy response-function analysis with multiple efficiencies) <input type="checkbox"/> MAESTRO <input type="checkbox"/> Neutron Gamma Integration (NGI) <input type="checkbox"/> SuperHENC_QC.xls	<p>The calibration of the SuperHENC is documented in BII-5221-SRF-001, "SUPERHENC RFETS Calibration Documentation Package" and BII-5221-CVR-001, "Calibration and Validation Report SuperHENC Mobile Assay System."</p> <p>The TMU for the SuperHENC is documented in BII-5221-CVR-001, Section 4.1.1.</p>
14HENC1	CCP-HENC-01	CCP High Efficiency Neutron Counter combined neutron and gamma system Operating Procedure CCP-TP-107	<input type="checkbox"/> (113) ³ He neutron detectors <input type="checkbox"/> (1) Broad range HPGe detector <input type="checkbox"/> Shielded assay chamber <input type="checkbox"/> Mechanical conveyor and turntable assembly for drum handling <input type="checkbox"/> Cf-252 add-a-source assembly	<input type="checkbox"/> NDA 2000, Version 4.0 (MGA.exe and MGA-U.exe are tracked as part of NDA 2000) <input type="checkbox"/> Genie 2000, Version 3.0	<p>The calibration of the HENC is documented in CCP-INL-HENC-001, "CCP HENC Supplemental Calibration, Confirmation, and Verification Report," CCP-INL-HENC-001a, "CCP HENC Gamma Spectrometer Supplemental Calibration, Confirmation, and Verification Report, and CCP-INL-HENC-001b, CCP HENC Gamma Spectrometer supplemental calibration, Confirmation, and Verification Report."</p> <p>The TMU for the HENC is documented in CCP-INL-HENC-002, "Total Measurement Uncertainty for the CCP High Efficiency Neutron Counter."</p>
14WAGS1	WAGS	Waste Assay Gamma Spectrometer (WAGS) Quantitative gamma acquisition system with transmission matrix corrections, multi curve density and gamma isotopic capabilities. Operating Procedure CCP-TP-019	<input type="checkbox"/> 6 BeGe detectors <input type="checkbox"/> Shielded Assay Chamber <input type="checkbox"/> 3 Ba-133 transmission sources <input type="checkbox"/> 6 Digital Spectrum Analyzers 1000 <input type="checkbox"/> Pulser	<input type="checkbox"/> NDA 2000, Version 4.0 (MGA.exe and MGA-U.exe are tracked as part of NDA 2000) <input type="checkbox"/> Genie 2000, Version 3.0	<p>Calibration for the WAGS is discussed in CCP-INL-WAGS-001. For the WAGS the calibrated range and operational ranges are synonymous.</p> <p>The TMU for the WAGS is documented in CCP-INL-WAGS-002, "Total Measurement Uncertainty for the WAGS System."</p>
14SGRS1	SGRS	Stored Waste Examination Pilot Plant (SWEPP) Gamma Ray Spectrometer (SGRS) Quantitative gamma acquisition system with multi-curve density and gamma isotopic capabilities. Operating Procedure CCP-TP-115	<input type="checkbox"/> 4 BeGe detectors <input type="checkbox"/> Shielded Assay Chamber <input type="checkbox"/> 1 Pulser <input type="checkbox"/> 4 Digital Spectrum Analyzers	<input type="checkbox"/> NDA 2000, Version 4.0 (MGA.exe and MGA-U.exe are tracked as part of NDA 2000) <input type="checkbox"/> Genie 2000, Version 3.0	<p>The calibration for the SGRS is discussed in CCP-INL-SGRS-001. For the SGRS the calibrated range and operational ranges are synonymous.</p> <p>The TMU for the SGRS is documented in CCP-INL-SGRS-002, "Total Measurement Uncertainty for the SGRS System."</p>

LIST OF CERTIFIED EQUIPMENT AND PROCESSES AT INL/CCP					
WIPP WWIS #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
Dose-to-Curie (DTC)					
14DTC1	Dose-to-Curie	Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH waste streams for which the scaling factors are applicable, as described in the waste stream specific radiological reports. Dose-rate fractional contribution of Cs-137 and Co-60 using OSPREY™ La ₃ Br(Ce) gamma detector Procedure CCP-TP-504	As identified in CCP-TP-504	As identified in CCP-TP-504	N/A
Non-Destructive Examination (NDE)					
14RR2	MCS RTR-5	Real-time Radiography Mobile Characterization System's RTR-5 [built by VJ Technologies] – 55 gallon drums Procedure CCP-TP-053	<input type="checkbox"/> Shielded x-ray enclosure with a hydraulic drum loading door and manually opened personnel door <input type="checkbox"/> Conveyer cart including drum manipulation equipment <input type="checkbox"/> X-ray imaging system including x-ray tube, image intensifier, and video camera <input type="checkbox"/> Video/audio recording equipment <input type="checkbox"/> Mobile platform	N/A	N/A
14RRH1	RTR-RTR-0659	Real-time Radiography Characterization System [built by VJ Technologies] Procedure CCP-TP-508	<input type="checkbox"/> X-ray imaging system including x-ray tube, image intensifier, and video camera <input type="checkbox"/> Video/audio recording equipment <input type="checkbox"/> Fixed platform	N/A	N/A

Gas Generation Testing (GGT)					
14GG1	MGSS Unit/Cart 1 (GC-14B)	Mobile Gas Generation Testing Sampling System 55 – gallon drums Procedure CCP-TP-083, CCP-TP-089, CCP-TP-092, and CCP-TP-094	<input type="checkbox"/> Cart including Gas Chromatograph	<input type="checkbox"/> Shimadzu Class-VP 7.2.1 Client Software <input type="checkbox"/> GGTP Data Calculation	N/A
14GG2	MGSS Unit/Cart 2 (GC-17A)	Mobile Gas Generation Testing Sampling System 55 – gallon drums Procedure CCP-TP-083, CCP-TP-089, CCP-TP-092, and CCP-TP-094	<input type="checkbox"/> Cart including Gas Chromatograph	<input type="checkbox"/> Shimadzu Class-VP 7.2.1 Client Software <input type="checkbox"/> GGTP Data Calculation	N/A
Flammable Gas Analysis (FGA)					
14HG2	N/A	DOEWIPP-06-3345	<input type="checkbox"/> Agilent GC/MSD-GC-TCD – Unit 1	<input type="checkbox"/> CTI- modified Agilent Technologies ChemStation Software and reprocessing software	14HG2
14HG5	N/A	DOEWIPP-06-3345	<input type="checkbox"/> Agilent GC/MSD-GC-TCD – Unit 5	<input type="checkbox"/> CTI- modified Agilent Technologies ChemStation Software and reprocessing software	14HG5
14HG6	N/A	DOEWIPP-06-3345	<input type="checkbox"/> Agilent GC/MSD-GC-TCD – Unit 6	<input type="checkbox"/> CTI- modified Agilent Technologies ChemStation Software and reprocessing software	14HG6
Visual Examination (VE)					
14RHVE1	Audio/Video review/VE Technique	Visual Examination Technique (VET) to characterize RH TRU SCGs S3000, S4000, and S5000 waste. Procedure CCP-TP-500	N/A	N/A	N/A
14VE1	ARP Packaging Stations	Visual Examination of waste processed through the Accelerated Retrieval Project (ARP). Procedure CCP-TP-006	N/A	N/A	N/A

LIST OF CERTIFIED EQUIPMENT AND PROCESSES AT THE INL/CCP ANALYTICAL LABORATORIES					
WIPP WWIS #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
Headspace Gas (HGS)					
8HSG2	HSG	SUMMA Sampling process on selected waste containers from waste stream lots.	<input type="checkbox"/> As identified in CCP-TP-093	<input type="checkbox"/> As identified in CCP-TP-093	N/A
12HE4	GC/MS-H	Environmental Chemistry Lab (ECL) - Headspace gas volatile organic compounds specified in procedure CCP-TP-175 PDP ID - GC/MS-H	<input type="checkbox"/> GC/MS (Method described in procedure CCP-TP-175)	<input type="checkbox"/> HP Enviroquant Chemstation	N/A
12HE5	GC-1	Environmental Chemistry Lab (ECL) - Headspace gas volatile organic compounds specified in procedure CCP-TP-173 PDP ID - GC-1	<input type="checkbox"/> GC-FID (Method described in CCP-TP-173)	<input type="checkbox"/> HP Chemstation	N/A
12HE6	GC-2	Environmental Chemistry Lab (ECL) - Headspace gas volatile organic compounds specified in procedure CCP-TP-173 PDP ID - GC-2	<input type="checkbox"/> GC-FID (Method described in CCP-TP-173)	<input type="checkbox"/> HP Chemstation	N/A
12HE9	GC-7	Environmental Chemistry Lab (ECL) - Headspace gas volatile organic compounds specified in procedure CCP-TP-173 PDP ID - GC-7	<input type="checkbox"/> GC-FID (Method described in CCP-TP-173)	<input type="checkbox"/> Agilent Chemstation	N/A
Solids					
12HA8	VOA-4	Analytical Laboratory Department (ALD) - Total purgable volatile organic compound analysis specified in procedure CCP-TP-184	<input type="checkbox"/> GC/MS (Method described in CCP-TP-184)	<input type="checkbox"/> Agilent Chemstation	N/A
12HA3	GC-1	Analytical Laboratory Department (ALD) - Total non-halogenated volatile organic compounds specified in procedure CCP-TP-186	<input type="checkbox"/> GC-FID (Method described in CCP-TP-186)	<input type="checkbox"/> Agilent Chemstation	N/A
12HA14	GC-6	Analytical Laboratory Department (ALD) - Total non-halogenated volatile organic compounds specified in procedure CCP-TP-186	<input type="checkbox"/> GC-FID (Method described in CCP-TP-186)	<input type="checkbox"/> Agilent Chemstation	N/A
12HA10	SV-6	Analytical Laboratory Department (ALD) -	<input type="checkbox"/> GC/MS (Method described	<input type="checkbox"/> Agilent ChemStation	N/A

LIST OF CERTIFIED EQUIPMENT AND PROCESSES AT THE INL/CCP ANALYTICAL LABORATORIES					
WIPP WWIS #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
		Total semi-volatile organic compounds specified in procedure CCP-TP-185	in CCP-TP-185)		
12HA12	SV-8	Analytical Laboratory Department (ALD) – Total semi-volatile organic compounds specified in procedure CCP-TP-185	<input type="checkbox"/> GC/MS (Method described in CCP-TP-185)	<input type="checkbox"/> Agilent ChemStation	N/A
12HA13	VOA-5	Analytical Laboratory Department (ALD) – Total purgable volatile organic compound analysis specified in procedure CCP-TP-184	<input type="checkbox"/> GC/MS (Method described in CCP-TP-184)	<input type="checkbox"/> Agilent Chemstation	N/A
12HM11	ICP-7	Analytical Laboratory Department (ALD) – Total metals analysis specified in procedure CCP-TP-182	<input type="checkbox"/> Total metals analysis (ICP-AES) specified in procedure CCP-TP-182	<input type="checkbox"/> J-YESS	N/A
12HM8	CVHG-2	Analytical Laboratory Department (ALD) – Total metals (Hg) analysis specified in procedure CCP-TP-181	<input type="checkbox"/> Total metals (Hg) analysis (CVAA) specified in procedure CCP-TP-181	<input type="checkbox"/> AA WinLab Analyst	N/A
12HM12	CVHG-3	Analytical Laboratory Department (ALD) – Total metals (Hg) analysis specified in procedure CCP-TP-181	<input type="checkbox"/> Total metals (Hg) analysis (CVAA) specified in procedure CCP-TP-181	<input type="checkbox"/> AA WinLab Analyst	N/A
12HM9	MW-3	Analytical Laboratory Department (ALD) - Total metals digestion specified in procedure CCP-TP-183	<input type="checkbox"/> Microwave digester - Method described in procedure CCP-TP-183	N/A	N/A
12HM10	MW-4	Analytical Laboratory Department (ALD) – Total metals digestion specified in procedure CCP-TP-183	<input type="checkbox"/> Microwave digester - Method described in procedure CCP-TP-183	N/A	N/A

List of Deactivated Equipment			
WIPP #	Site Equipment #	Site Description	Date Deactivated
12HM2	ID 356094	INTEC Lab – Total metals digestion specified in procedure ACMM-8909 (Replaced by 12HM9)	May 2005
12HM1	ID322554	INTEC Lab – Total metals digestion specified in procedure ACMM-8909 (Replaced by 12HM10)	November 2005
14RR1	MCS RTR-2	Real-Time Radiography Mobile Characterization System RTR-2 [built by VJ Technologies] – 55-gallon drums – specified in procedure CCP-TP-102	December 2005
12HA5	SV-2	INTEC Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	March 2006
12HA11	SV-7	INTEC Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	June 2006
12HA6	SV-3	INTEC Lab – Total semi-volatile organic compounds specified in procedure ACMM-9270	June 2006
12SS1	W0096-0563-EC-00	Materials and Fuel Complex – Core sampling as specified in procedure HFEF-OI-6910	June 2006
12SS2	W0096-0563-EC-00	Materials and Fuel Complex – Small Container Sampling as specified in procedure HFEF-OI-6923	June 2006
12HE7	GC-5	Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925	May 2007
12HE8	GC-6	Environmental Chemistry Lab - Headspace gas hydrogen and methane analysis specified in procedure ACMM-9925	May 2007
14TGS1	CCP-TGS-1	CCP Tomographic Gamma Scanner, Tomographic gamma imaging system mounted in transportation container, specified in procedure CCP-TP-097.	March 2008
12HE1	GC/MS-E	ECL Headspace gas volatile organic compounds specified in procedure CCP-TP-175	April 2008
12HE3	GC/MS-G	ECL Headspace gas volatile organic compounds specified in procedure CCP-TP-175	April 2008
12HA9	GC-5	Analytical Laboratory Department (ALD) – Total non-halogenated volatile organic compounds specified in procedure CCP-TP-186, GC-FID (Method described in CCP-TP-186)	September 2009
12HM4	ICP-5	Analytical Laboratory Department (ALD) – Total metals analysis specified in procedure CCP-TP-182, Total metals analysis (ICP-AES) specified in procedure CCP-TP-182	September 2009
12HM7	CVHG-1	Analytical Laboratory Department (ALD) – Total metals (Hg) analysis specified in procedure CCP-TP-181	September 2009
12HA1	VOA-1	Analytical Laboratory Department (ALD) – Total purgable volatile organic compound analysis specified in procedure CCP-TP-184, GC/MS (Method described in CCP-TP-184), Finnigan Magnum	September 2009
12HM3	ICP-4	Analytical Laboratory Department (ALD) – Total metals analysis specified in procedure CCP-TP-182	October 2009
12HE2	GC/MS-F	Environmental Chemistry Lab (ECL) - Headspace gas volatile organic compounds specified in procedure CCP-TP-175	May 2010

**CENTRAL CHARACTERIZATION PROJECT
LIST OF CERTIFIED PROCEDURES AT IDAHO NATIONAL LABORATORY**

#	Procedure No.	Procedure Title
1.	CCP-PO-001	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	CCP Transuranic Waste Certification Plan
3.	CCP-PO-003	CCP Transuranic Authorized Method for Payload Control (CCP CH-TRAMPAC)
4.	CCP-PO-005	CCP Conduct of Operations
5.	CCP-PO-008	CCP Quality Assurance Interface with the WTS Quality Assurance Program
6.	CCP-PO-016	CCP Gas Generation Testing Program Quality Assurance Project Plan
7.	CCP-PO-024	CCP/INL Interface Document
8.	CCP-PO-030	CCP/Battelle Energy Alliance Analytical Chemistry & Instrument Department Interface Document
9.	CCP-PO-031	CCP/Idaho Cleanup Project Analytical Laboratories Department Interface Document
10.	CCP-PO-501	CCP/INL RH TRU Waste Interface Document
11.	CCP-PO-505	CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)
12.	CCP-QP-001	CCP Graded Approach
13.	CCP-QP-002	CCP Training and Qualification Plan
14.	CCP-QP-004	CCP Corrective Action Management
15.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
16.	CCP-QP-006	CCP Corrective Action Reporting and Control
17.	CCP-QP-008	CCP Records Management
18.	CCP-QP-010	CCP Document Preparation, Approval, and Control
19.	CCP-QP-011	CCP Laboratory Logbooks
20.	CCP-QP-014	CCP Quality Assurance Trend Analysis and Reporting
21.	CCP-QP-015	CCP Procurement
22.	CCP-QP-016	CCP Control of Measuring and Testing Equipment
23.	CCP-QP-017	CCP Identification and Control of Items
24.	CCP-QP-018	CCP Management Assessment
25.	CCP-QP-019	CCP Quality Assurance Reporting to Management
26.	CCP-QP-021	CCP Surveillance Program
27.	CCP-QP-022	CCP Software Quality Assurance Plan
28.	CCP-QP-023	CCP Handling, Storage and Shipping
29.	CCP-QP-026	CCP Inspection Control
30.	CCP-QP-027	CCP Test Control
31.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
32.	CCP-QP-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
33.	CCP-QP-036	CCP Qualification of Acceptable Knowledge of Remote-Handled Transuranic Waste Through a Quality Assurance Equivalency Demonstration
34.	CCP-TP-001	CCP Project Level Data Validation and Verification
35.	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
36.	CCP-TP-003	CCP Data Analysis for S3000, S4000, and S5000 Characterization
37.	CCP-TP-005	CCP Acceptable Knowledge Documentation
38.	CCP-TP-006	CCP Visual Examination Technique for INL Newly Generated TRU Waste Retrieved from Pits
39.	CCP-TP-008	CCP Solids Sampling Procedure
40.	CCP-TP-010	CCP Waste Assay Gamma Spectrometer (WAGS) & SWEPP Gamma Ray Spectrometer (SRGS) Calibration Procedure
41.	CCP-TP-019	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
42.	CCP-TP-028	CCP Radiographic Test and Training Drum Construction
43.	CCP-TP-030	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
44.	CCP-TP-033	CCP Shipping of CH TRU Waste
45.	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
46.	CCP-TP-054	CCP Adjustable Center of Gravity Lift Fixture Preoperational Checks and Shutdown
47.	CCP-TP-055	CCP Varian Porta-Test Leak Detector Operations
48.	CCP-TP-056	CCP HSG Performance Demonstration Plan
49.	CCP-TP-058	CCP NDA Performance Demonstration Program
50.	CCP-TP-068	CCP Standardized Container Management
51.	CCP-TP-082	CCP Preparing and Handling Waste Containers for Headspace Gas Sampling
52.	CCP-TP-083	CCP Gas Generation Testing
53.	CCP-TP-086	CCP TRUPACT-II Shipping Payload Assembly

**CENTRAL CHARACTERIZATION PROJECT
LIST OF CERTIFIED PROCEDURES AT IDAHO NATIONAL LABORATORY**

#	Procedure No.	Procedure Title
54.	CCP-TP-093	CCP Sampling of TRU Waste Containers
55.	CCP-TP-106	CCP Headspace Gas Sampling Batch Data Report Preparation
56.	CCP-TP-107	Operating the CCP High Efficiency Neutron Counter Using NDA2000
57.	CCP-TP-108	Calibrating the CCP High Efficiency Neutron Counter Using NDA2000
58.	CCP-TP-109	CCP Data Reviewing, Validating, and Reporting Procedure
59.	CCP-TP-115	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
60.	CCP-TP-119	CCP Operating the RTR System #5
61.	CCP-TP-138	CCP Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure
62.	CCP-TP-146	CCP SuperHENC Operating Procedure
63.	CCP-TP-148	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
64.	CCP-TP-162	CCP Random Selection of Containers for Solids and Headspace Gas Sampling and Analysis
65.	CCP-TP-163	CCP Evaluation of Waste Packaging Records for Visual Examination of Records
66.	CCP-TP-170	CCP SuperHENC Calibration Procedure
67.	CCP-TP-173	CCP Analysis of Gas Samples for VOCs by GC/FID
68.	CCP-TP-175	CCP Analysis of Gas Samples for VOCs by GS/MS
69.	CCP-TP-176	CCP Determination of Method Detection Limits for Gas Analysis
70.	CCP-TP-177	CCP Sample Receipt, Custody, and Storage
71.	CCP-TP-178	CCP SUMMA® Canister Cleaning
72.	CCP-TP-179	CCP Gas Transfer Manifold Systems and Sample Compositing
73.	CCP-TP-180	CCP Analytical Sample Management
74.	CCP-TP-181	CCP Determination of Mercury by CVAA for TRU Waste Characterization
75.	CCP-TP-182	CCP Determination of Metals of ICP-AES for TRU Waste Characterization
76.	CCP-TP-183	CCP Microwave Assisted Digestion of Homogenous Solids and Soil/Gravel
77.	CCP-TP-184	CCP Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry
78.	CCP-TP-185	CCP Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry
79.	CCP-TP-186	CCP Determination of Nonhalogenated Volatile Organics by Gas Chromatography
80.	CCP-TP-187	CCP Sample Preparation for Semivolatile Organic Compounds
81.	CCP-TP-188	CCP Analytical Data Recording, Review, and Reporting
82.	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
83.	CCP-TP-504	CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste
84.	CCP-TP-506	CCP Preparation of the Remote-Handled Transuranic Waste Acceptable Knowledge Characterization Reconciliation Report
85.	CCP-TP-507	CCP Shipping of Remote-Handled Transuranic Waste
86.	CCP-TP-508	CCP RH Standard Real-Time Radiography Inspection Procedure
87.	CCP-TP-509	CCP Remote-Handled Transuranic Container Tracking
88.	CCP-TP-510	CCP Remote-Handled Radiography Test and Training Drum Requirements
89.	CCP-TP-512	CCP Remote-Handled Waste Sampling
90.	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry

CENTRAL CHARACTERIZATION PROJECT LIST OF DEACTIVATED PROCEDURES AT IDAHO NATIONAL LABORATORY			
#	Procedure No.	Procedure Title	Deactivation Date
1.	CCP-PO-025	CCP WIPP/RCRA Field Sampling and Analysis Plan for the Accelerated Retrieval Project for a Described Area within Pit 4	11/16/06
2.	CCP-QP-009	CCP Work Control Process	10/13/06
3.	CCP-TP-090	CCP Headspace Gas Sampling Using the Automated Manifold System	7/31/06
4.	CCP-TP-091	CCP HSG Data Generation and Batch Data Reporting	6/6/06
5.	CCP-TP-097	CCP Operating the CCP Tomographic Gamma Scanner (TGS)	3/12/08
6.	CCP-TP-110	Setup and Calibration of the CCP Tomographic Gamma Scanner (TGS)	3/12/08
7.	CCP-TP-112	CCP Data Reviewing, Validating, and Reporting for the TGS	3/12/08
8.	CCP-TP-102	CCP RTR #2 Radiography Inspection Operating Procedure – incorporated into CCP-TP-053	11/16/06
9.	HFEF-OI-6862	TWCP Sample Storage and Shipment	6/6/06
10.	HFEF-OI-6890	TWCP Visual Examination	6/6/06
11.	HFEF-OI-6910	TWCP Core Drilling Operations	6/6/06
12.	HFEF-OI-6921	TWCP Solid Sample Preparation	6/6/06
13.	HFEF-OI-6923	Small Container Sample Preparation	6/6/06
14.	NT-AP-03	TRU Waste Characterization Program Data Generation-Level Review	6/6/06
15.	NT-AP-09	TWCP Visual Exam Expert (VEE) Functions and Process	6/6/06
16.	ACLP 4.10	Determination of Method Detection Limits for Gas Analysis – incorporated into CCP-TP-176	5/2/07
17.	ACLP 4.25	Sample Receiving, Custody, and Storage – incorporated into CCP-TP-177	5/2/07
18.	ACLP 4.40	Summa® Canister Cleaning – incorporated into CCP-TP-178	5/2/07
19.	ACLP 4.45	Gas Transfer Manifold Systems and Sample Compositing – incorporated into CCP-TP-179	5/2/07
20.	ACMM-2810	Determination of Mercury by CVAA for TRU Waste Characterization - – incorporated into CCP-TP-181	5/2/07
21.	ACMM-2901	Determination of Metals by ICP-AES for TRU Waste Characterization – incorporated into CCP-TP-182	5/2/07
22.	ACMM-8909	Microwave Assisted Digestion of Homogeneous Solids and Soil/Gravel – incorporated into CCP-TP-183	5/2/07
23.	ACMM-9080	Determination of Polychlorinated Biphenyls (PCBs) by Gas Chromatography	4/27/04
24.	ACMM-9260	Volatile Organic Compounds by Gas Chromatography Mass Spectrometry – incorporated into CCP-TP-184	5/2/07
25.	ACMM-9270	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry – incorporated into CCP-TP-185	5/2/07
26.	ACMM-9441	Determination of Nonhalogenated Volatile Organics by Gas Chromatography – incorporated into CCP-TP-186	5/2/07
27.	ACMM-9500	Sample Preparation for Semivolatile Organic Compounds and Polychlorinated Biphenyls – incorporated into CCP-TP-187	5/2/07
28.	ACMM-9910	Analysis of Gas Samples for VOCs by GC/FID – incorporated into CCP-TP-173	5/2/07
29.	ACMM-9925	Analysis of Gas Samples for Hydrogen and Methane by Micro GC/TCD	5/2/07
30.	ACMM-9930	Analysis of Gas Samples for VOCs by GC/MS – incorporated into CCP-TP-175	5/2/07
31.	MCP-2002	Analytical Sample Management – incorporated into CCP-TP-180	5/2/07
32.	MCP-2008	Analytical Data Recording, Review and Reporting – incorporated into CCP-TP-188	5/2/07
33.	MCP-2009	Analytical Software Control – incorporated into CCP-QP-022	5/2/07
34.	MCP-2610	QA Program Administrative Controls for the TWCP – incorporated into CCP-PO-001, CCP-PO-002, CCP-PO-003, CCP-QP-002, CCP-QP-005, CCP-QP-006, CCP-QP-008, CCP-QP-010, CCP-QP-016 and CCP-QP-022	5/2/07
35.	MCP-2011	CCP Notebooks and Logbooks	5/2/07

CENTRAL CHARACTERIZATION PROJECT LIST OF DEACTIVATED PROCEDURES AT IDAHO NATIONAL LABORATORY			
#	Procedure No.	Procedure Title	Deactivation Date
36.	PLN-1258	Quality Program Plan for the TWCP – incorporated into CCP-PO-002	5/2/07
37.	PLN-600	Analytical Laboratories Quality Assurance Plan for the TWCP – incorporated into CCP-PO-001 and CCP-TP-188	5/2/07
38.	TWCP-CBFO-SOW	CBFO Statement of Work for the INL TRU Waste Characterization Program – incorporated into CCP-PO-001	5/2/07
39.	CCP-TP-160	CCP Random Selection of Containers for Headspace Gas Sampling and Analysis	7/2/09
40.	CCP-TP-161	CCP Random Selection of Containers for Solids Sampling and Analysis	7/2/09
41.	CCP-TP-089	CCP Mobile Gas Generation Testing Sampling System (MGSS) Sampling Operation	10/23/09
42.	CCP-TP-092	CCP Mobile Gas Generation Testing Sampling System (MGSS) Data Calculation	10/23/09
43.	CCP-TP-094	CCP GGTP Drum Screening and Batching	10/23/09

**CH Tiering of TRU Waste Characterization Processes Implemented by CCP at INL (Based on May 3-5, 2005 EPA Baseline Inspection No. EPA-INL-CCP-05.05-8)
DOCKET # A98-49; II-A4-59**

(Changes based on Continued Compliance Inspection No. EPA-INL-CCP 09.08-24 on February 2009 EPA Docket # A-98-49, II-A4-112)

WC Process Elements	INL-CCP WC T1 Changes	INL-CCP WC T2 Changes ^a
AK and Load Management	<p>Any new summary category group for TRU waste.</p> <p>Changes to WWIS algorithms specific to load management requiring revisions to the load management provision of DOE's CH Waste Acceptance Criteria (CH WAC).</p> <p>Changes to the targeted waste(s) from what was presented in Revision 6 of the AK Summary CCP-AK-INL-001.</p>	<p>Notification to EPA upon completion of the following:</p> <p>Waste Stream Profile Forms including updates or additions to waste stream(s) within an approved waste category.</p> <p>Changes in load management status of approved waste stream(s).</p> <p>Changes to the WWIS algorithms corresponding to the changes to the load management provisions of the CH WAC.</p> <p>Changes to site procedures requiring Carlsbad Field Office (CBFO) approvals.</p> <p>Providing any analysis evaluating effectiveness of the Waste Identification Process.</p> <p>Providing future revisions of CCP-AK-INL-001, Revision 6.</p> <p>Providing future Discrepancy Reports related to radiological and physical characteristics of the ID-SDA-SOIL, ID-SDA-SLUDGE, and ID-SDA-DEBRIS waste streams.</p> <p>Providing AK Accuracy Reports for the ID-SDA-SOIL, ID-SDA-SLUDGE, and ID-SDA-DEBRIS waste streams.</p> <p>All forthcoming revisions to AK-NDA memoranda that apply to ID-SDA-SOIL, ID-SDA-SLUDGE, and ID-SDA-DEBRIS waste streams.</p>
NDA	<p>New equipment or substantive changes^b to approved equipment affecting actual radioassay results (e.g., DQO compliance, TMU).</p> <p>Modification^c to approved calibration range for approved equipment and/or equipment.</p>	<p>Changes to software for approved equipment.</p> <p>Changes to operating range(s) upon CBFO approval.</p> <p>Changes to site procedures requiring Carlsbad Field Office (CBFO) approval.</p>
RTR	N/A	Changes to site procedures requiring Carlsbad Field Office (CBFO) approvals.
VE	N/A	Changes to site procedures requiring Carlsbad Field Office (CBFO) approvals.

**CH Tiering of TRU Waste Characterization Processes Implemented by CCP at INL (Based on May 3-5, 2005 EPA Baseline Inspection No. EPA-INL-CCP-05.05-8)
DOCKET # A98-49; II-A4-59**

(Changes based on Continued Compliance Inspection No. EPA-INL-CCP 09.08-24 on February 2009 EPA Docket # A-98-49, II-A4-112)

WC Process Elements	INL-CCP WC T1 Changes	INL-CCP WC T2 Changes ^a
WWIS	N/A	Changes to site procedures requiring Carlsbad Field Office (CBFO) approvals.

^a INL-CCP will report all T2 changes to EPA at the end of each fiscal quarter.

^b "Substantive changes" are changes with the potential to impact the site's WC activities or documentation thereof, excluding changes that are solely related to ES&H, nuclear safety or RCRA, or that are editorial in nature,

^c "Modifications to approved calibration range for approved equipment and/or equipment" include all changes with the potential to affect NDA data relative to waste isolation and exclude minor changes, such as the addition of safety-related equipment.

Table 1. Tiering of RH TRU Waste Characterization Processes Implemented by INL-CCP (Approval Date Nov 1, 2010)

RH Process Elements	INL-CCP RH WC Process - T1 Changes	INL-CCP RH Process - T2 Changes ²
<p>Acceptable Knowledge (AK)</p>	<p>Addition of containers to approved waste streams if new or different radionuclide scaling factors are required</p> <p>Any new waste streams not approved under the baseline or as a T1 approval</p> <p>Substantive modification(s) that have the potential to affect the characterization process: CCP-AK-INL-500, CCP-AK-INL-501, or CCP-AK-INL-502</p> <p>Load management for any RH waste stream</p>	<p>Notification to EPA when AKSRs, Radiological Characterization Report and Certification Confirmation Test Plans (i.e., CCP-AK-INL-500, CCP-AK-INL-501, and CCP-AK-INL-502) updates are approved by CBFO</p> <p>Notification to EPA when changes to AK documentation as a result of WCPIP revisions have been made (e.g., CRR)</p> <p>Notification to EPA when a CSSF is completed for each of the RH containers in this waste stream identified as CH based on measured dose rates that present NDA results for assayed containers</p> <p>Notification to EPA once waste stream data package for debris waste stream and any modifications to the WSPF, including the CRR and AK Summary, are completed</p> <p>Notification to EPA that the final DTC determination is complete for RH containers numbers 728 through 737, as identified in AK Reference P030</p> <p>AK accuracy reports (prepared annually, at a minimum)</p> <p>Notification to EPA when additional containers are added to RH TRU Waste Stream AERHDM and the containers were characterized using the same radionuclide scaling factors*</p> <p>Notification to EPA of availability of a revised AKSR and source documents supporting the addition of containers to the approved waste stream*</p> <p>Notification to EPA when Attachment 4 of CCP-TP-005 is generated to reflect the updated AKSR Source Document Reference List</p> <p>Notification of availability of additional discrepancy resolutions pertinent to RH Waste Stream IN-ID-NRF-153</p>
<p>Radiological Characterization, including Dose-to-Curie (DTC)</p>	<p>Application of new scaling factors for isotopic determination other than those documented in CCP-AK-INL-501</p> <p>Use of any alternate radiological characterization procedure other than DTC with established scaling factors as documented in CCP-TP-504 or substantive modification of the DTC procedure</p> <p>Use of any alternate gamma detector with the OSPREY™ system characterization procedure other than the La₃Br(Ce)</p>	<p>Notification to EPA upon completion of revisions of CCP-AK-INL-501 or CCP-TP-504 that require CBFO approval</p> <p>Notification to EPA of availability of a revised radiological characterization report, if required for the addition of containers to the approved waste stream*</p> <p>Radiological content data provided in BDRs for the population of additional containers*</p>

Table 1. Tiering of RH TRU Waste Characterization Processes Implemented by INL-CCP (Approval Date Nov 1, 2010)

RH Process Elements	INL-CCP RH WC Process - T1 Changes	INL-CCP RH Process - T2 Changes ²
	detector observed at INTEC in July 2010 Any new RH waste stream not approved under this baseline or addition of containers to Waste Stream ID-ANLE-S5000 that requires changing the established radionuclide scaling factors Characterizing another NRF debris waste using different radiological characterization process and/or different scaling factors	
Visual Examination (VE)	VE using audio/video media to characterize additional debris waste streams other than Waste Stream ID-ANLE-S5000 or waste from other Summary Waste Categories	Notification to EPA upon completion of changes to VE procedure(s) that require CBFO approval Physical content data provided in BDRs for the population of additional containers*
Real-Time Radiography (RTR)	Any new S5000 RH waste stream other than ID-ANLE-S5000, ID-MFC-S5400-RH, and IN-ID-NRF-153 or wastes from a S3000 or S4000 RH waste stream Notification to EPA prior to addition of a new RTR unit(s)	Notification to EPA upon completion of changes to RTR procedure(s) that require CBFO approval Physical content data provided in BDRs for the population of additional containers*
WIPP Waste Data System, WDS (previously known as WWIS)	None	Changes made to WDS procedure(s) that require CBFO approval

Notes:

- This table has been modified by deleting the references to specific sections of the baseline inspection report where each T1 or T2 element is discussed.
- INL-CCP will report all T2 changes to EPA every three months.
- Notification to EPA is not necessary when document updates are editorial in nature or are required to address administrative concerns.
- *Substantive modification* refers to a change with the potential to affect INL-CCP's RH waste characterization process, e.g., the use of an inherently different type of measurement instrument or the use of the high-range probe as described in CCP-TP-504.
- Additions to the tiering table as a result of this T1 evaluation appear in **bold**.

* These marked changes apply when containers are added to Lot 1B of waste stream ID-HFEF-S5400-RH and are characterized using the same radionuclide scaling factors as were used to characterize the original approved waste stream. EPA notification is required when the site identifies the need to characterize additional containers belonging to the approved waste stream.