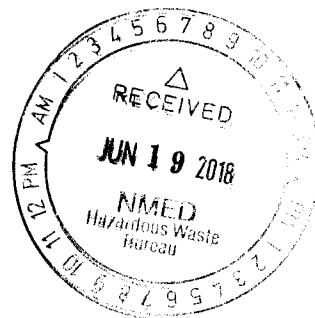


ENTERED

Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221



JUN 19 2018

Mr. Bruce Covert
President and Project Manager
Nuclear Waste Partnership LLC
P.O. Box 2078
Carlsbad, NM 88221

Mr. Pete Maggiore
Assistant Manager
NNSA Los Alamos Field Office
3747 West Jemez Road
Los Alamos, NM 87544

Subject: Recertification Start-up for Los Alamos National Laboratory Central Characterization Program

Dear Mr. Covert and Mr. Maggiore:

The Carlsbad Field Office (CBFO) has completed the annual recertification audits of the Los Alamos National Laboratory (LANL) Central Characterization Program (CCP) transuranic (TRU) waste characterization and certification activities for contact-handled (CH) Summary Category Groups (SCGs) S3000 solids, S4000 soils/gravel, and S5000 debris as listed below.

- The CBFO suspended the LANL certification and characterization activities associated with TRU waste disposition of S3000 solids and all waste processed at the Waste Characterization, Reduction, and Repackaging Facility (WCRRF), until further notice, CBFO Memo CBFO:NTP:JRS:MAG:14-1947:UFC 5900.00 dated July 16, 2014.
 - The CBFO lifted the suspension of certification activities associated with the LANL S3000 waste and all TRU waste processed at the LANL WCRRF for containers stored at Waste Control Specialist, CBFO Memo CBFO:ONTP:JS:RMS:17-2026:UFC 5900.00 dated August 14, 2017.
- Audit A-14-19 recertification activities were conducted on August 19-21, 2014 and the New Mexico Environment Department (NMED) provided approval on April 19, 2017.
- Surveillance S-14-44 follow-up of the A-14-19 was conducted on August 26-27, 2014.
- Audit A-15-21 recertification activities were conducted on September 1-3, 2015 and the NMED provided approval on April 19, 2017.
- Audit A-16-19 characterization activities to evaluate compliance with the WIPP Waste Acceptance Criteria (WAC), Rev. 8 were conducted on May 17-19, 2016 and the NMED provided approval on April 19, 2017.
- Audits A-17-17 recertification and AK Enhancement activities were performed on May 16-18, 2017, the BoK, VE, FGA, and WWIS/SDS for S3000 were indeterminate and the NMED provided approval on January 23, 2018 "to include only those waste forms and processes evaluated by these recertification audits".
 - Surveillance S-18-21 was performed on October 31-November 6, 2017 for the Enhanced AK and the *Transportation Authorization specific* for the debris waste stream LA-OS-00-01.001 containers stored at LANL. The surveillance team determined that the LANL-CCP has met the enhanced AK (AKA, CCEM, and BoK) process, the VE, WDS, and TRUCON Code process and are now in compliance.



JUN 19 2018

- The US Environmental Protection Agency (USEPA) performed a *Baseline Inspection* on February 7-9, 2017 to evaluate the newly-implemented transuranic waste characterization process changes, particularly the enhanced AK implemented to meet the WAC, Rev. 8, and the technical adequacy of VE and NDA implementation in Technical Area-55. In accordance with 40 CFR 194.8, the EPA issued report on October 4, 2017, DOCKET NO: A-98-49; II-A4-212.

The audit teams determined that the LANL-CCP TRU programs were in compliance with the:

- *WIPP Hazardous Waste Facility Permit NM4890139088-TSDF (Waste Analysis Plan)*;
- DOE/CBFO-94-1012, *CBFO Quality Assurance Program Document (QAPD)*;
- DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant, Revision 8*; and
- DOE/WIPP-07-3372, *WIPP Documented Safety Analysis*, Chapter 18.

Based on the results of the CBFO Audits/Surveillances (See Enclosure I), and conditions and limitations provided by the NMED and the USEPA, the CBFO grants continued authority for the LANL-CCP for TRU waste characterization, certification, and transportation activities as listed in Table 1 of this letter

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 letter are the following enclosures:

- Attachment 1 describes the LANL-CCP certification program status;
- Attachment 2 contains the list of processes/equipment certified at this site;
- Attachment 3 contains the list of the LANL-CCP certified procedures/documents; and
- Attachment 4 describes specific LANL-CCP waste characterization process elements that must be reported to the EPA and describes those that must be approved prior to implementation.

If you have any questions, please contact Mr. Kenneth E. Princen, Assistant Manager, National TRU Program at (575)-234-7053.

Sincerely,



Todd Shrader, Manager
Carlsbad Field Office



Kenneth E. Princen
CBFO Senior Technical Safety Manager

JUN 19 2018

cc: w/enclosures
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J. Vajda, RES ED
M. Doherty, CTAC ED
K. Lickliter, CTAC ED
P. Martinez, CTAC ED
J. Trone, SNL ED
Site Documents ED
WIPP Operating Record ED
CBFO M&RC
*ED denotes electronic distribution

TABLE 1			
Status of LANL-CCP Certified Waste Characterization Processes			
Characterization Processes	S3000 Homogeneous Solids	S4000 Soils/Gravel (*** Requires EPA Approval)	S5000 Debris
Acceptable Knowledge	Approved	Approved	Approved
Acceptable Knowledge Assessments	Approved**	Approved**	Approved
Chemical Compatibility Evaluation Status	Approved	Approved	Approved
Basis of Knowledge Evaluation	Approved	Approved	Approved
Interface Waste Management Documents List	Not Approved*	Not Approved*	Not Approved*
Load Management	Not Approved	Not Approved	Not Approved
Data Generation and Project Level Validation & Verification	Approved	Approved	Approved
Nondestructive Assay	Approved	Approved	Approved
Real-time Radiography	Approved	Approved	Approved
Visual Examination	Indeterminate (no activity A-17-17)	Approved	Approved
WIPP Waste Information System/Waste Data System	Approved	Approved	Approved
CBFO Information:			
<ul style="list-style-type: none"> - Characterization Processes in this Table may not be completely listed in Enclosure 2. - The NTP continues to operate under compensatory measures as required from the Corrective Action Plan for WA.1-Pre.1. Authorization to ship letters will be provided to the certified program signed by the Deputy Manager (SBAA/SA/STSM) with DOE EM SME concurrence. - *Per Corrective Action Plan for WA.1-Pre.1 IWMDLs are not authorized to be approved until corrective actions have been completed. - **As the process for AKAs is identical for each SCG, this approval is based upon S5000 approval S-18-21. - ***The table identifies the CBFO DOE approved process related to Recertification CBFO Audit A-17-17, but the FINAL approval will be issued through a Tier 1 approval per EPA 2017 Baseline Inspection report at TA-55 for S3000 & S5000 (Tier 1 any AK, VE of SCG S4000 and Tier 1 of any RTR all SCGs) dated October 2017, DOCKET NO: A-98-49; II-A4-212. 			
EPA Information:			
<ul style="list-style-type: none"> - EPA approved CH Baseline Inspection dated June 2007, DOCKET NO: A-98-49; II-A4-88. - EPA approved Tier 1 Change extension of range for HENC#2 dated October 2007, DOCKET NO: A-98-49; II-A4-91. - EPA approved Tier 1 Change extension of range for the HENC#1 dated December 2007, DOCKET NO: A-98-49; II-A4-95. - EPA approved Tier 1 Change assaying of lead-lined drums using the HENC#2 dated November 2010; DOCKET NO: A-98-49; II-A4-139. - EPA 2011 Continued Compliance Inspection approval dated February 2011; DOCKET NO: A-98-49; II-A4-141. - EPA approved Tier 1 Change adding the SuperHENC dated October 2011; DOCKET NO: A-98-49; II-A4-153. - EPA approved Tier 1 Change for calibration extension of HENC#1 and SuperHENC dated August 2012; DOCKET NO: A-98-49; II-A4-164. - EPA approved Tier 1 Change adding SCG S4000 dated December 2012; DOCKET NO: A-98-49; II-A4-168. - EPA approved Tier 1 Change adding MILCC dated July 2013; DOCKET NO: A-98-49; II-A4-176. - EPA 2013 Continued Compliance Inspection report (TIER 1 for VE SCG S4000) dated February 2014; DOCKET NO: A-98-49; II-14-179. - EPA 2015 Continued Compliance Inspection report not issued – Open Findings for RTR and VE. - EPA approved Tier 1 Change adding the HENC#3 for S3000, S4000, S5000 dated October 2015 ; DOCKET NO: A-98-49; II-A4-199. - EPA 2017 Baseline Inspection report at TA-55 for S3000 & S5000 (Tier 1 any AK, VE of SCG S4000 and Tier 1 of any RTR all SCGs) dated October 2017, DOCKET NO: A-98-49; II-A4-212. - EPA approved Tier 1 Change re-evaluating the HENC#2, SuperHENC, MILCC, HERTR and characterization processes and activities for CH S3000 at TA-54 (T1 of any AK, RTR, VE of SCG S4000) dated October 2017; DOCKET NO: A-98-49; II-A4-213. 			

**CENTRAL CHARACTERIZATION PROGRAM DEPLOYED AT
LOS ALAMOS NATIONAL LABORATORY for CONTACT-HANDLED
SUMMARY CATEGORIES S3000, S4000, and S5000**

Recertification Audit A-14-19:

The CBFO conducted Recertification Audit A-14-19 of the LANL-CCP Contact-Handled (CH) Summary Category Groups (SCG) S4000 soils/gravel and S5000 debris on August 19-21, 2014 (excluding CH SCG S3000 solids and Nondestructive Assay (NDA) processes at Waste Characterization, Reduction, and Repackaging Facility (WCRRF) due to suspension of all characterization activities at WCRRF.

- No CARs were issued.
- The Interim Audit Report was issued on September 19, 2014.
- The Audit Report was issued to NMED on October 23, 2014.
- The NMED issued approval on April 19, 2017.

Surveillance S-14-44:

The CBFO conducted Surveillance S-14-44 as a follow-up to Audit A-14-19 of the LANL-CCP NDA and equipment (HENC#1, HENC#2, MILCC) to characterize CH SCGs S4000 and S5000 on August 26-27, 2014. The surveillance indicated that the NDA activities for characterization of SCGs S4000 soils/gravel and S5000 debris using the equipment and procedures examined and subject to the measurement controls in place are adequate, satisfactory and effective. The CH SCG S3000 solids was not evaluated due to the waste activities at WCRRF being suspended CBFO:NTP:JRS:MAG:14-1947 dated July 16, 2014. The suspension was lifted on August 14, 2017 CBFO:NTP:JS:RMS:17-2016:UFC 5900.00.

- No CARs were issued.
- The Surveillance Report was issued on September 19, 2014.

The following site **program documents** are current and comply with the CBFO requirements:

- **CCP-PO-001, Revision 21, CCP Transuranic Waste Characterization Quality Assurance Project Plan,**
CBFO Approval - CBFO:NTP:JRS:PG:13-0487:UFC 5900.00 approved April 17, 2013;
- **CCP-PO-002, Revision 27, CCP Transuranic Waste Certification Plan,**
CBFO Approval - CBFO:NTP:JRS:PG:13-0593:UFC 5900.00 dated May 31, 2013;
- **CCP-PO-003, Revision 13, CCP Transuranic Authorized Method for Payload Control,**
CBFO Approval - CBFO:NTP:JRS:GL:13-0671:UFC 5900.00 dated July 29, 2013.

Performance Demonstration Program (Note that the program documents and PDP approvals listed above are the revisions that were audited and may not be the current revisions.):

NDA PDP – Cycle 20A Approved for radioassay of WIPP wastes contained in TRU waste drums using the **HENC1** (NDA PDP Registration LA06/LAN5) and **HENC2** (NDA PDP Registration LA07/LAN6) using the procedure identified as CCP-TP-063, Revision 14. This approval expired on August 1, 2014.

Memo - CBFO:NTP:BM:CC:13-0643:UFC 5900.00 dated July 10, 2013.

NDA PDP – Cycle 20A Approved for radioassay of WIPP wastes contained in TRU waste drums using the **MILCC** (NDA PDP Registration LA09/LAG2) using the procedure identified as CCP-TP-076, Revision 0. This approval expired on August 12, 2014. (no characterization activities were available)

Memo - CBFO:NTP:MB:CC:13-0651:UFC 5822.00 dated July 15, 2013.

NDA PDP – Cycle B13A Approved for radioassay of WIPP wastes contained in TRU SWBs using the **SHENC** (NDA PDP Registration LA08/LAN7) using the procedure identified as CCP-TP-059, Revision 2, and **MILCC** (NDA PDP Registration LA09/LAG2) using the procedure identified as CCP-TP-076, Revision 0. This approval expired on January 2, 2015.

Memo - CBFO:NTP:MB:LC:13-0799: UFC 5900.00 dated December 10, 2013.

Audit A-15-21:

The CBFO conducted recertification Audit A-15-21 for CH SCGs S4000 soils/gravel and SCG S5000 debris waste on September 1-3, 2015. The CH SCG for S3000 solids was not evaluated due to inactivity and suspension and will require an additional surveillance. The audit team verified that the characterization and certification activities for SCG S4000 and S5000 continue to be adequate, satisfactorily implemented, and effective.

- CAR 15-063 was issued on September 15, 2015 and closed on December 7, 2015.
- The Interim Audit Report was issued on September 28, 2015.
- The Final Audit Report was issued to NMED on December 9, 2015.
- The NMED issued approval on April 19, 2017.

The following site **program documents** are current and comply with the CBFO requirements:

- **CCP-PO-001, Revision 21, CCP Transuranic Waste Characterization Quality Assurance Project Plan**,
CBFO Approval - CBFO:NTP:JRS:PG:13-0487:UFC 5900.00 approved April 17, 2013;
- **CCP-PO-002, Revision 27, CCP Transuranic Waste Certification Plan**,
CBFO Approval - CBFO:NTP:JRS:PG:13-0593:UFC 5900.00 dated May 31, 2013;
- **CCP-PO-003, Revision 13, CCP Transuranic Authorized Method for Payload Control**,
CBFO Approval - CBFO:NTP:JRS:GL:13-0671:UFC 5900.00 dated July 29, 2013.

Performance Demonstration Program (Note that the program documents and PDP approvals listed above are the revisions that were audited and may not be the current revisions.):

NDA PDP – Cycle 22A Approved for radioassay of WIPP wastes contained in TRU waste drums using the **MILCC** (NDA PDP Registration LA09/LAG2) using Revision 1 of the procedure identified as CCP-TP-076 and **HENC1** (NDA PDP Registration LA06/LAN5) using the procedures identified as CCP-TP-063, Revision 17 and the **HENC2** (LA10/LAN8) did not participate in this cycle. This approval expired on July 3, 2016.

Memo - CBFO:TSTD:NC:MT:15-1002:UFC 5900.00 dated July 6, 2015.

NDA PDP – Cycle B14A Approved for radioassay of WIPP wastes contained in transuranic (TRU) SWBs using the **SHENC** (NDA PDP Registration LA08/LAN7) using the procedure identified as CCP-TP-059, Revision 3, and **MILCC** (NDA PDP Registration LA09/LAG2) using the procedure identified as CCP-TP-076, Revision 1. This approval expired on December 14, 2015.

Memo - CBFO:TSTD:NC:BA:14-2051:UFC 5900.00 dated December 2, 2014.

NDA PDP – Cycle 21B Approved for radio assay of WIPP wastes contained in TRU waste drums using the CCP LANL HENC3 (NDA PDP Registration LA10/LAN8) using the procedure identified as CCP-TP-107, Revision 14. This approval is based on the current revision of this procedure. This approval will expire on March 5, 2016.
Memo – CBFO:TSTD:NC:SG:15-0924:UFC 5900.00 dated February 19, 2015.

NDA PDP – Cycle 22A Approved for radioassay of WIPP wastes contained in TRU waste drums using the CCP LANL HENC3 (NDA PDP Registration LA10/LAN8) using the procedure identified as CCP-TP-107, Revision 14. This approval expired on July 25, 2016.
Memo - CBFO:TSTD:NC:MT:15-1004:UFC 5900.00 dated July 7, 2015.

Audit A-16-19:

The CBFO conducted recertification Audit A-16-19 for CH SCGs S4000 soils/gravel and S5000 debris waste on May 17-19, 2016. The SCG S3000 wastes or any other wastes processed through the Waste Characterization, Reduction, and Repackaging Facility (WCRRF) was not audited due to the suspension of LANL certification and characterization activities associated with TRU waste disposition of CH SCG S3000 and all waste processed at the WCCRF, until further notice.

CBFO Memo – CBFO:NTP:JRS:MAG:14-1947 dated July 16, 2014.

- The Interim Audit Report was issued on June 8, 2016
- The Final Audit Report was issued on August 9, 2016.
- The NMED issued approval on April 19, 2017.

The following site program documents are current and comply with the CBFO requirements:

- **CCP-PO-001, Revision 22, CCP Transuranic Waste Characterization Quality Assurance Project Plan,**
CBFO Approval - CBFO:NTP:JRS:GL:16-1809:UFC 5900.00 approved January 13, 2016;
- **CCP-PO-002, Revision 27, CCP Transuranic Waste Certification Plan,**
CBFO Approval - CBFO:NTP:JRS:PG:13-0593:UFC 5900.00 dated May 31, 2013;
- **CCP-PO-003, Revision 13, CCP Transuranic Authorized Method for Payload Control,**
CBFO Approval - CBFO:NTP:JRS:GL:13-0671:UFC 5900.00 dated July 29, 2013.

Performance Demonstration Program (Note that the program documents and PDP approvals listed above are the revisions that were audited and may not be the current revisions.):

NDA PDP – Cycle 22A Approved for radioassay of WIPP wastes contained in TRU waste drums using the CCP LANL HENC3 (NDA PDP Registration LA10/LAN8) using the procedure identified as CCP-TP-107, Revision 14. This approval expired on July 25, 2016.

Memo - CBFO:TSTD:NC:MT:15-1004:UFC 5900.00 dated July 7, 2015.

NDA PDP – Cycle B15A Approved for radioassay of WIPP wastes contained in TRU SWBs using the SHENC (NDA PDP Registration LA08/LAN7) using the procedure identified as CCP-TP-059, Revision 4 and MILCC (NDA PDP Registration LA09/LAG2) using the procedure identified as CCP-TP-076, Revision 1. This approval expired on January 7, 2017.

Memo - CBFO:TSTD:NC:MT:15-1172:UFC 5900.00 dated December 15, 2015.

Audit A-17-17:

The CBFO conducted recertification Audit A-17-17 for CH SCGs S3000 solids, S4000 soils/gravel and SCG S5000 debris waste on May 16-18, 2016. Portions of the Enhanced AK process, VE at OSRP, new MILCC3 NDA equipment and SCG S3000 (WWIS, FGA, VE) waste characterization at WCRRF were indeterminate due to inactivity.

- CAR 17-037 was issued on May 25, 2017 and closed on August 1, 2017.
- The Interim Audit Report was issued on June 16, 2017.
- The Final Audit Report was issued on August 7, 2017.
- The NMED issued approval on January 23, 2018 (after completion of S-18-18 and S-18-21 listed below).

The following site **program documents** are current and comply with the CBFO requirements:

- **CCP-PO-001, Revision 22, CCP Transuranic Waste Characterization Quality Assurance Project Plan,**
CBFO Approval - CBFO:NTP:JRS:GL:16-1809:UFC 5900.00 approved January 13, 2016;
- **CCP-PO-002, Revision 29, CCP Transuranic Waste Certification Plan,**
CBFO Approval - CBFO:TSTD:JRS:PG:16-2021:UFC 5900.00 dated July 22, 2016;
- **CCP-PO-003, Revision 14, CCP Transuranic Authorized Method for Payload Control,**
CBFO Approval - CBFO:NTP:JRS:GL:17-0728:UFC 5900.00 dated February 15, 2017.

Performance Demonstration Program (Note that the program documents and PDP approvals listed above are the revisions that were audited and may not be the current revisions.):

NDA PDP – Cycle 23A at TA-54 Approved for radioassay of WIPP wastes contained in Transuranic (TRU) waste drums using the MILCC (NDA PDP Registration LA09/LAG2) using Revision 1 of the procedure identified as CCP-TP-076, Revision 1 and HENC2 (NDA PDP Registration LA07/LAN6) using the procedure identified as CCP-TP-63, Revision 17. This approval will expire on July 29, 2017.

Memo – CBFO:TSTD:NC:MR:16-1990:UFC 5900.00 dated July 7, 2016.

NDA PDP – Cycle 23A Approved for radioassay of WIPP wastes contained in TRU waste drums using the CCP LANL HENC3 (NDA PDP Registration LA10/LAN8) using the procedure identified as CCP-TP-107, Revision 14. This approval is based on the current revision of the procedure and will expire on **July 29, 2017**.

Memo - CBFO:TSTD:NC:MR:16-1991:UFC 5900.00 dated July 7, 2016.

NDA PDP – Cycle B16A at TA-54 Approved for radioassay of WIPP wastes contained in TRU SWBs using the SHENC (NDA PDP Registration LA08/LAN7) using the procedure identified as CCP-TP-059, Revision 5 and MILCC (NDA PDP Registration LA09/LAG2) using the procedure identified as CCP-TP-076, Revision 2. This approval will expire on December 1, 2017.

Memo - CBFO:NOD:NC:GS:16-2706:UFC 5900.00 dated November 15, 2016.

Surveillance S-18-21 was performed for *the Enhanced AK* and for the *Transportation Authorization* for the LANL-CCP for the CH SCG S5000 debris waste stream LA-OS-00-01.001 on October 31-November 2, 2017. On August 14, 2017, CBFO Memo CBFO:ONTP:JS:RMS:17-2026:UFC 5900.00, the CBFO lifted the suspension of certification activities associated with LANL CH SCG S3000 solids waste and all TRU waste processed at the LANL WCCRF for containers stored at WCS and resumed processing of this previously certified waste through the AK process.

The surveillance team concluded that the applicable requirements of DOE/CBFO-94-1012, *Quality Assurance Program Document*, DOE/WIPP-07-3372, *Waste Isolation Pilot Plant (WIPP) Documented Safety Analysis (DSA)*, Revision 5b, and the DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria (WAC) for the WIPP*, Revision 8, Appendices H (H.5) and I and related quality assurance and technical implementing procedures specific to waste stream LA-OS-00-01.001 containers stored at LANL have been met in regards to the enhanced Acceptable Knowledge process (AKA, CCEM, BoK), VE at OSRP, WWIS/WDS.

- No CARs were issued.
- The Surveillance Report was issued on November 29, 2017.

Surveillance S-17-05 of the Waste Isolation Pilot Plant (WIPP) Generator Site Technical Review (GSTR) at the LANL. The surveillance was conducted April 17-21, 2017 in Los Alamos, New Mexico. The surveillance verified that the implementation and effectiveness of the GSTR process is adequate and compliant with applicable requirements.

- No CARs were issued.
- The Surveillance Report was issued on June 28, 2017.
- The GSTR Final Report GSTR-LA-1-17-01 was issued on March 8, 2018.
- CBFO Notification of the GSTR completion was issued on May 30, 2018 (CBFO:ONTP:CF:RMS:18-0659:UFC 5900.00).

The CBFO audited the following for NWP/CCP Quality Assurance activities:

Audit A-14-10 was conducted on March 25-27, 2014.

- CARs 14-030 through 14-036 were issued on April 7, 2014.
- CAR 14-030 was closed on June 10, 2014.
- CAR 14-031 was closed on June 24, 2014.
- CARs 14-032 and 14-033 were closed on August 14, 2014.
- CAR 14-034 was closed on May 28, 2014.
- CAR 14-035 was closed on May 15, 2014.
- CAR 14-036 was closed on June 2, 2014.
- The Audit Report was issued on April 29, 2014.

Audit A-15-12 was conducted on April 7-9, 2015.

- CAR 15-034, 15-035, 15-036, and 15-038 were issued on April 24, 2015.
- CAR 15-034 was closed on July 9, 2015.
- CAR 15-035 was closed on August 18, 2015.
- CAR 15-036 was closed on June 24, 2015.
- CAR 15-038 was closed on August 19, 2015.
- The Audit Report was issued on May 1, 2015.

Audit A-16-12 was conducted on March 29-31, 2016.

- CAR 16-030 was issued on April 5, 2016 and closed on September 6, 2016.
- CAR 16-031 was issued on April 5, 2016 and closed on May 24, 2016.
- The Audit Report was issued on April 20, 2016.

Audit A-17-13 was conducted on March 28-30, 2017.

- No CARs were issued.
- The Audit Report was issued on June 8, 2017.

The CBFO audited the following for Transportation activities:

Audit A-14-05 was conducted on December 3-5, 2013 of the All Sites Transportation Activities for CH and RH TRU Waste activities.

- CAR 14-007 was issued on December 12, 2013 and closed on February 7, 2014.
- The Audit Report was issued on January 15, 2014.

Surveillance S-14-22 was conducted on April 2-3, 2014 to evaluate LANL-CCP activities for shipments of TRU waste from LANL to WCS.

- The Surveillance Report was issued on April 21, 2014.

Audit A-15-07 was conducted on January 20 - 22, 2015 of the All Sites Transportation Activities for CH and RH TRU Waste activities.

- The Audit Report was issued on February 18, 2015.

Surveillance S-16-24 was conducted on February 23, 2016 of the All Sites CCP Transportation Training Activities for CH and RH.

- The Surveillance Report was issued on February 29, 2016.

Surveillance S-17-34 was conducted on April 24-26, 2017 of the LANL/CCP TRU waste stored at WCS.

- The Surveillance Report was issued on April 26, 2017.

The EPA provided the following inspections and reports based on characterization program implemented by the CCP at LANL in accordance with the Initial Baseline EPA 40 CFR 194.8, *Federal Register* notice April 2007:

- The EPA performed a *Continued Compliance Inspection* on November 19-21, 2013 and issued approval on February 11, 2014, DOCKET NO: A-98-49; II-A4-179.
- The EPA performed a *Continued Compliance Inspection* on February 10-12, 2015.
 - The EPA did not issue a report due to open findings on RTR and VE, the CBFO issued a letter to EPA acknowledging close out of the CBFO's responses to EPA Issue Number LAL-CC-CH-CH-2015-NDA-06CR (CBFO:TSTD:NC:TC:16-1912:UFC 5486.00 dated April 11, 2016 and CBFO:TSTD:NC:MR:16-1964:UFC 5900.00 dated June 13, 2016).
- The CBFO requested as a *Tier 1* to the EPA on January 12, 2014 (CBFO:TSTD:JRS:GL:15-0905: UFC 5900.00) adding the High Efficiency Neutron Counter #3 (HENC #3) NDA system to the EPA approved CCP program at LANL.
 - The EPA issued approval on September 8, 2015, DOCKET NO: A-98-49; II-A4-199 (revised report October 7, 2015).
- The EPA performed a *Baseline Inspection* on February 7-9, 2017.
 - The EPA issued approval on October 4, 2017, DOCKET NO: A-98-49; II-A4-212.
- The CBFO requested as a *Tier 1* to the EPA on May 3, 2017 to evaluate the already approved NDA equipment (HENC2, MILCC, SHENC), the NDE (HERTR) and characterization processes and activities at TA-54 at LANL.
 - The EPA issued approval on October 13, 2017, DOCKET NO: A-98-49; II-A4-213.

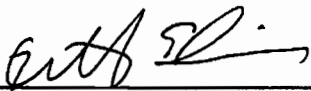
The EPA issued concurrence on the draft recertification letter on April 24, 2018.

The EPA issued concurrence on the revised draft certification letter on June 6, 2018.

RECOMMENDATION

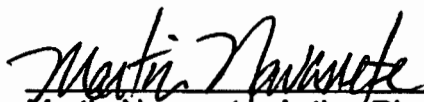
The recommendation to the CBFO Manager is to grant authority for the Central Characterization Program at Los Alamos National Laboratory for the TRU Waste characterization, certification, and transportation activities as identified in the Audits/Surveillances and EPA approvals listed in Attachment 1 of this memorandum.

CONCURRENCE



Kenneth E Princen, Assistant Director
National TRU Program

5/30/18
Date



Martin Navarrete, Acting Director
Office of Quality Assurance

6-5-18
Date

CENTRAL CHARACTERIZATION PROJECT at LOS ALAMOS NATIONAL LABORATORY					
List of Certified Processes/Equipment					
WDS Method ID #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
Non-Destructive Assay					
11HC2	HENC2	Canberra Industries High Efficiency Neutron Counter mounted in a transportation container, located on Pad 10, Area G of TA-54. Approved for analysis of drums. As identified in CCP-TP-063, CCP-TP-064, and CCP-TP-103	<ul style="list-style-type: none"> • Tin/Copper gamma ray filter • Add-A-Source (AAS) • Canberra Neutron Multiplicity Counter • Canberra Digital Signal Processor • Broad Energy Germanium (BEGe) detector • Pulser 	<ul style="list-style-type: none"> • Canberra NDA 2000 • Genie 2000 • Multi Group Analysis (MGA) Isotopics • Fixed-energy Response function Analysis with Multiple efficiencies (FRAM) 	<p>CCP-LLNL-HENC-001, CCP HENC Calibration and Validation Plan and Report,</p> <p>LANL-NDA-1003-Lead_lined . Lead-Lined Calibration Report for the HENC #2 Including Passive Neutron and Gamma Spectrometer,</p> <p>HENC#2-NDA-1002, The Calibration Report for the HENC#2 Including Passive Neutron and Gamma Spectrometer Calibration and Confirmation, and</p> <p>CI-HENC2-TMU-101, Total Measurement Uncertainty for the HENC#2 With Integral Gamma Spectrometer.</p>
11HC3	HENC3	Canberra Industries High Efficiency Neutron Counter mounted in a trailer located in Building 407, TA-55. Approved for analysis of drums and 12 inch Pipe Overpack Containers. As identified in CCP-TP-107, CCP-TP-108, and CCP-TP-103	<ul style="list-style-type: none"> • Tin/Copper gamma ray filter • Add-A-Source • Canberra Neutron Multiplicity Counter • Canberra Digital Signal Processor • Broad Energy Germanium (BEGe) detector • Pulser 	<ul style="list-style-type: none"> • Canberra NDA 2000 • Genie 2000 • Multi Group Analysis (MGA) Isotopics • Fixed-energy Response function Analysis with Multiple efficiencies (FRAM) 	<p>LANL HENC3, Multi-curve Efficiency Calibration Report,</p> <p>LANL-HENC3-NDA-101, Addendum to Calibration Report for the HENC3 at the Los Alamos National laboratory TA 55 Facility, and</p> <p>LANL-HENC3-TMU-101, Total Measurement Uncertainty for the HENC3 with Integral Gamma Spectrometer.</p>
11MILCC1	MILCC	Mobile ISOCs Large Container Counter (MILCC) located in Dome 54-283, Area G of TA-54. Approved for 55-gallon drums, Standard Waste Boxes, and Corrugated Metal Boxes As identified in CCP-TP-076, CCP-TP-077, and CCP-TP-103	<ul style="list-style-type: none"> • ISOCs rails and collimator sets (2) • ISOCs carts (2) • Broad Energy Germanium (BEGe) detectors (2) • Tin/Copper gamma ray filters • Digital Signal Processors 	<ul style="list-style-type: none"> • NDA 2000 • Genie 2000 • Multi Group Analysis (MGA) Isotopics • ISOCs-In Situ Object Counting Software • Fixed-Energy Response function Analysis with Multiple efficiencies (FRAM) 	<p>CI-MILCC-NDA-1006, Calibration Report for the Mobile ISOCs Large Container Counter (MILCC) at Los Alamos National Laboratory Including Gamma Spectrometer Calibration and Confirmation, and</p> <p>White Paper on the Evaluation of Measuring Corrugated Metal Boxes Using a Standard Waste Box Calibration,</p> <p>CI-MILCC-TMU-104, Total Measurement Uncertainty Report for MCS/LANL ISOCs Box Counter.</p>

CENTRAL CHARACTERIZATION PROJECT at LOS ALAMOS NATIONAL LABORATORY					
List of Certified Processes/Equipment					
WDS Method ID #	Site Equipment # or Title	Description	Components	Software	NDA Calibrated and TMU
Non-Destructive Examination					
11HERTR3	HERTR	High Energy Real Time Radiography [built by VJ Technologies] As identified in CCP-TP-053 and CCP-TP-198	<ul style="list-style-type: none"> • Control and Data Acquisition console/station • X-ray producing component with controls • Shielded X-ray enclosure. • Waste container handling system with turntable dolly assembly • Conveyor cart, drum handling equipment (forklift with container grapples) X-ray imaging system • Video/Audio recording equipment 	NA	NA
Visual Examination					
11VE1	N/A	CH Visual Examination As identified in CCP-TP-113	N/A	N/A	N/A
11VE2	N/A	CH Visual Examination (OSRP) Procedure CCP-TP-069 Procedure CCP-TP-101 Description: Characterization performed utilizing VE	N/A	N/A	N/A
NOTE: Equipment must remain in compliance with the PDP program to certify waste.					

CENTRAL CHARACTERIZATION PROJECT at LOS ALAMOS NATIONAL LABORATORY		
List of Certified Processes/Equipment Deactivated or Demobilized		
WDS Method ID #	Site Equipment # or Title	Description
Non-Destructive Assay		
11SHC1	SHENC	<p>Super High Efficiency Neutron Counter mounted in a trailer. Approved for analysis of SWBs.</p> <p>As identified in CCP-TP-059, CCP-TP-064, and CCP-TP-103</p> <p>Partially Demobilized Due to no feed (boxes). Will restart characterization activities TBD.</p>

CENTRAL CHARACTERIZATION PROJECT at LOS ALAMOS NATIONAL LABORATORY			
LIST OF CERTIFIED PROCEDURES/DOCUMENTS			
No.	Procedure No.	Rev No.	PROCEDURES/DOCUMENT TITLE
1.	CCP-PO-001	22	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	29	CCP Transuranic Waste Certification Plan
3.	CCP-PO-003	14	CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)
4.	CCP-PO-005	28	CCP Conduct of Operations
5.	CCP-PO-012	16	CCP/Los Alamos National Laboratory (LANL) Interface Document
6.	CCP-PO-045	2	CCP Waste Management Field Observation
7.	CCP-PO-047	0	CCP Training and Qualification Program Document
8.	CCP-PO-049	0	CCP Training Implementation Matrix
9.	CCP-QP-002	42	CCP Training and Qualification Plan
10.	CCP-QP-005	25	CCP TRU Nonconforming Item Reporting and Control
11.	CCP-QP-008	26	CCP Records Management
12.	CCP-QP-016	23	CCP Control of Measuring and Testing Equipment
13.	CCP-QP-017	4	CCP Identification and Control of Items
14.	CCP-QP-022	17	CCP Software Quality Assurance Plan
15.	CCP-QP-028	17	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
16.	CCP-QP-041	0, 1	CCP Job Needs Analysis and Design
17.	CCP-QP-042	0, 1	CCP Project Level Training and Qualification
18.	CCP-QP-043	0, 1	CCP Operations Level Training and Qualification
19.	CCP-TP-001	21	CCP Project Level Data Validation and Verification
20.	CCP-TP-002	26	CCP Reconciliation of DQOs and Reporting Characterization Data
21.	CCP-TP-005	29	CCP Acceptable Knowledge Documentation
22.	CCP-TP-028	10	CCP Radiographic Test Drum and Training Container Construction
23.	CCP-TP-030	36	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
24.	CCP-TP-053	16	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
25.	CCP-TP-058	6	CCP NDA Performance Demonstration Program
26.	CCP-TP-059	5	CCP Operating the Super High Efficiency Neutron Counter (SHENC) Using NDA 2000
27.	CCP-TP-063	18	CCP Operating the High Efficiency Neutron Counter Using NDA 2000
28.	CCP-TP-064	9	CCP Calibrating the High Efficiency Neutron Counter and the Super High Efficiency Neutron Counter Using NDA 2000
29.	CCP-TP-068	12	CCP Standardized Container Management
30.	CCP-TP-069	6	CCP Sealed Source Visual Examination and Packaging
31.	CCP-TP-076	2	CCP Operating the Mobile ISOCS Large Container Counter Using NDA 2000
32.	CCP-TP-077	2	CCP Calibrating the Mobile ISOCS Large Container Counter Using NDA 2000
33.	CCP-TP-082	10	CCP Waste Container Filter Vent Maintenance Operation
34.	CCP-TP-101	8	CCP Off-Site Source Recovery Project Sealed Source Radiological

CENTRAL CHARACTERIZATION PROJECT at LOS ALAMOS NATIONAL LABORATORY LIST OF CERTIFIED PROCEDURES/DOCUMENTS			
No.	Procedure No.	Rev No.	PROCEDURES/DOCUMENT TITLE
			Characterization
35.	CCP-TP-103	13	CCP Data Reviewing, Validating and Reporting Procedure for the NDA Counters at LANL Using NDA 2000
36.	CCP-TP-107	15	CCP Operating the High Efficiency Neutron Counter #3 (HENC #3) Using NDA 2000
37.	CCP-TP-108	9	CCP Calibrating the High Efficiency Neutron Counter #3 (HENC #3) Using NDA 2000
38.	CCP-TP-113	20	CCP Standard Contact-Handled Waste Visual Examination
39.	CCP-TP-120	16	CCP Container Management (CCP-TP-068 took the place of CCP-TP-120, but containers still exist for completion of characterization using CCP-TP-120)
40.	CCP-TP-138	2	CCP Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure
41.	CCP-TP-198	8	CCP HE-RTR Operating Procedure
42.	CCP-TP-200	1	Chemical Compatibility Evaluation Memorandum and Acceptable Knowledge Assessment Review
43.	CCP-TP-201	0	Verification of Shipping Criteria and Emplacement Criteria (As of 12/2017 doc is obsolete)
NOTE: Any changes to procedures that affect performance criteria or data quality, testing procedures, quality assurance objectives, calibration requirements, or QC sample acceptance criteria comply with the WIPP HWFP WAP (Attachment C) and shall not be made without prior approval of the CBFO.			
NOTE: For QA/Transportation elements, please refer to QA/Transportation Audits/Surveillances referenced in Attachment 1.			

**Table 1. Tiering of Contact-Handled Transuranic Waste Characterization Processes Implemented by LANL-CCP
(Based on February 7–9, 2017, Baseline Inspection and Subsequent Evaluations, Updated October 2017)**

Process Elements	LANL-CCP Waste Characterization Process – T1 Changes	LANL-CCP Waste Characterization Process – T2 Changes*
Acceptable Knowledge, including Load Management	Characterization of SCG S4000 waste Any implementation of payload management	Submission of a list of active LANL-CCP CH AKEs and SPMs that performed work during the previous quarter Notification to the EPA upon completion of or substantive modification** to: <ul style="list-style-type: none"> • CCP-TP-005, Attachments 6, 7, 8 and 9, and associated memoranda (i.e., WMP, AK-NDA, add-container memoranda) • AK accuracy reports (annually, at a minimum) • AK reassessment memoranda and Discrepancy Resolution Reports • WSPFs and any associated change notices • AKSRs • Site procedures requiring CBFO approval • Enhanced AK documents such as AKAs (including addition of new figures), CCEMs and BOK memoranda
Nondestructive Assay	New equipment or substantive physical modifications** to approved equipment Extension of or changes to approved calibration ranges for approved equipment	Submission of a list of LANL-CCP NDA operators, EAs and ITRs that performed work during the previous quarter Notification to the EPA upon substantive modification** to: <ul style="list-style-type: none"> • Software for approved equipment • Operating ranges upon CBFO approval • Site procedures requiring CBFO approval
Real-Time Radiography	New equipment or substantive physical modifications** to approved equipment Implementation of any real-time radiography process for SCG S4000 waste	Submission of a list of LANL-CCP RTR operators and ITRs that performed work during the previous quarter Notification to the EPA upon substantive modification** to site procedures requiring CBFO approval
Visual Examination	Implementation of any visual examination process for SCG S4000 waste	Submission of a list of LANL-CCP VE operators, VE Experts and ITRs that performed work during the previous quarter Notification to the EPA upon substantive modification** to site procedures requiring CBFO approval, including OSRP visual examination technique procedure

* LANL-CCP will report all T2 changes to the EPA every three months.

** “Substantive modification” refers to a change with the potential to affect LANL-CCP’s CH waste characterization processes or documentation of them, excluding changes that are solely related to the environment, safety and health; nuclear safety; or the Resource Conservation and Recovery Act; or that are editorial in nature or are required to address administrative concerns. The EPA may request copies of new references that the U.S. Department of Energy (DOE) adds during a document revision.

NOTE: These process elements are identified as Tier 1 changes and Tier 2 changes. The LANL-CCP shall not ship for disposal at the WIPP any wastes affected by a Tier 1 process element change without prior CBFO approval, and the LANL-CCP shall report Tier 2 changes to the CBFO on a quarterly basis.