DATE: MAR 30 2018
REPLY TO ATTN OF: CBFO:OQA:DSM:JM:18-1723:UFC 2300.00
SUBJECT: Recertification Audit A-18-14 of the LANL/CCP
TO: Douglas E. Hintze, EM-LA

Please be advised that an audit team from the U.S. Department of Energy Carlsbad Field Office (DOE/CBFO) will conduct Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit Attachment C6 Audit A-18-14 for recertification of the Los Alamos National Laboratory (LANL) and the Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP) for conducting contact-handled (CH) transuranic waste characterization activities. The audit is scheduled for May 8 – 10, 2018, and will be conducted in accordance with the attached audit plan. The LANL/CCP characterization activities for CH Summary Category Groups S3000 solids, S4000 soils/gravel, and S5000 debris wastes will be evaluated during the audit. In addition, the audit team will verify compliance with the WIPP Waste Acceptance Criteria. Representatives from DOE/CBFO and the New Mexico Environment Department may be present to observe the audit.

Your representatives are requested to coordinate with the audit team to provide access to LANL/CCP facilities and to supply the necessary documentation and records for the audit team to conduct the audit. Please ensure availability of appropriate space for auditors to conduct meetings. Also, please arrange to have cognizant personnel available to support the audit.

If you have any questions or comments concerning the audit, please contact me at (575) 234-7491.

Dennis S. Miehls
Senior Quality Assurance Specialist

Attachment
cc: w/attachment

R. Murray, EM-3.113  *ED
D. Nickless, EM-LA        ED
T. Shrader, CBFO         ED
J. Carswell, CBFO        ED
K. Princen, CBFO         ED
M. Navarrete, CBFO       ED
M. Stapleton, CBFO       ED
M. Fineran, CBFO         ED
N. Castaneda, CBFO       ED
G. Birge, CBFO           ED
B. Covert, NWP           ED
J. Britain, NWP          ED
M. Pearcy, NWP/QA        ED
R. Lee, NWP/QA           ED
B. Pace, NWP/QA          ED
T. Groover, NWP/QA       ED
J. Carter, NWP/QA        ED
M. McDaniel, NWP/QA      ED
C. Tyler, NWP/QA         ED
V. Ballew, NWP/QA        ED
S. Saiz, NWP/QA          ED
A. Boyea, NWP/QA         ED
J. Walsh, EPA            ED
J. Ellis, EPA            ED
T. Peake, EPA            ED
E. Feltcorn, EPA         ED
R. Joglekar, EPA         ED
J. Kieling, NMED         ED
R. Maestas, NMED         ED
D. Biswell, NMED         ED
H. Tellez, NMED          ED
M. McLean, NMED          ED
T. Runyon, CTAC          ED
P. Martinez, CTAC        ED
M. Leroch, CTAC          ED
C. Castillo, CTAC        ED
R. Castillo, CTAC        ED
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G. White, CTAC           ED
CBFO QA File
CBFO M&RC

*ED denotes electronic distribution
CARLSBAD FIELD OFFICE
AUDIT PLAN

Audit Number: A-18-14

Organization to be Audited: Los Alamos National Laboratory (LANL), Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP)

Organizations to be Notified: LANL NWP New Mexico Environment Department (NMED) Defense Nuclear Facilities Safety Board U.S. Environmental Protection Agency

Date and Location: May 8–10, 2018 Los Alamos, NM, and Carlsbad, NM


* Indicates team members working at the Skeen-Whitlock Building in Carlsbad, NM.

Audit Scope:

The audit team will evaluate the continued adequacy, implementation, and effectiveness of the technical and quality assurance (QA) activities performed by NWP/CCP at LANL for characterization of contact-handled (CH) transuranic (TRU) Summary Category Groups (SCGs) S3000 solids, S4000 soils/gravel, and S5000 debris wastes.

The audit team will also evaluate characterization activities for SCG S3000 homogenous solids waste and the MILCC#3 nondestructive assay equipment, as
these were identified as indeterminate last year during A-17-17, LANL/CCP Recertification Audit.

A list of the equipment and processes to be evaluated is attached to this plan (Attachment 1).

**Governing Documents/Requirements:**

Evaluation of the overall program adequacy, implementation, and effectiveness of LANL/CCP documents will be based on the current revisions of the following documents:

- *Quality Assurance Program Document,* DOE/CBFO-94-1012
- Waste Isolation Pilot Plant Hazardous Waste Facility Permit NM4890139088-TSDF
- *Waste Isolation Pilot Plant Documented Safety Analysis,* DOE/WIPP-07-3372 (Chapter 18)

Programmatic and technical checklists will be developed from the current revisions of the following documents:

- *CCP Transuranic Waste Characterization Quality Assurance Project Plan,* CCP-PO-001
- *CCP Transuranic Waste Certification Plan,* CCP-PO-002
- *CCP/LANL Interface Document,* CCP-PO-012
- *CCP Interface Document Preparation,* CCP-PO-043
- Related NWP/CCP QA and technical implementing procedures

**Activities to be Audited:**

**General**

- Results of Previous Audits
- Changes in Programs or Operations
- New Programs or Activities Being Implemented
- Changes in Key Personnel

**C6-1 through C6-4 and general QA program elements as applicable**

- Nonconformances
- Personnel Qualification and Training
- Measuring and Test Equipment (M&TE)
- Software Version Installation
- Records
Technical Activities

- Project-level Data Validation and Verification (PL/V&V)
- Enhanced Acceptable Knowledge (AK), including waste certification
  - Including, but not limited to, Enhanced Chemical Compatibility Evaluation Memorandum, Basis of Knowledge, AK Assessments, AK Briefings, Interface Waste Management Documents List
- Real-time Radiography (RTR)
- Visual Examination (VE)
- Visual Examination Technique (VET), Off-Site Source Recovery Program
- Nondestructive Assay (NDA), including Performance Demonstration Program
- Flammable Gas Analysis (FGA)
- Container Management
- WIPP Waste Information System/Waste Data System (WWIS/WDS)
  - Including, but not limited to, Statistical Approach to Material at Risk

Schedule of Audit Activities:

A pre-audit conference is scheduled for Tuesday, May 8, 2018, at 8:30 a.m.

Audit team caucuses will be held at 3:30 p.m. on Tuesday and Wednesday, May 8 and 9, and at 1:30 p.m. on Thursday, May 10, 2018.

If needed, the audit team leader will conduct a management briefing with appropriate LANL and NWP/CCP management at 8:30 a.m. on Wednesday and Thursday, May 9 and 10, 2018.

A post-audit conference is scheduled for Thursday, May 10, 2018, at 2:30 p.m.

All meetings will take place at designated locations at the LANL in Los Alamos, NM, and at the Skeen-Whitlock Building in Carlsbad, NM.

Prepared by: [Signature]
Date: [Signature]

Rick Castillo
CTAC Audit Team Leader

Concurrence: [Signature]
Date: [Signature]

Martin P. Navarrete, Acting Director
CBFO Office of Quality Assurance
## Processes and Equipment to be Evaluated During Audit A-18-14 of the LANL/CCP

<table>
<thead>
<tr>
<th>WIPP #</th>
<th>Process/Equipment Description</th>
<th>Applicable to the Following Waste Streams/Groups of Waste Streams</th>
<th>Currently Approved by NMED</th>
<th>Currently Approved by EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>11HC2</td>
<td>Nondestructive Assay Procedure – CCP-TP-063, CCP-TP-064, CCP-TP-103 Description – Canberra Industries High Efficiency Neutron Counter (HENC) mounted in a transportation container.</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>11HC3</td>
<td>Nondestructive Assay Procedure – CCP-TP-103, CCP-TP-107, CCP-TP-108 Description – Canberra Industries High Efficiency Neutron Counter (HENC) mounted in a trailer</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>11SHC1</td>
<td>Nondestructive Assay Procedure – CCP-TP-059, CCP-TP-064, CCP-TP-103 Description – Super High-Efficiency Neutron Counter mounted in a trailer, SWBs</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td>11MILCC1</td>
<td>Nondestructive Assay Procedure(s) – CCP-TP-076, CCP-TP-077 and CCP-TP-103 Description – Mobile In-Situ Object Counting System (ISOCS) Large Container Counter (MILCC)</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>YES</td>
</tr>
<tr>
<td><strong>11MILCC3</strong></td>
<td>Nondestructive Assay Procedure(s) – CCP-TP-076, CCP-TP-077 and CCP-TP-103 Description – Mobile In-Situ Object Counting System (ISOCS) Large Container Counter (MILCC)</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>TBD</td>
</tr>
<tr>
<td>11HERTR3</td>
<td>High Energy Real-Time Radiography (HERTR) Procedures CCP-TP-053 and CCP-TP-198 Description – High Energy Real-Time Radiography (RTR) [built by VJ Technologies] 55-gallon drums and SWBs</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>*TBD (S3000) YES (S4000) YES (S5000)</td>
<td>YES</td>
</tr>
<tr>
<td>11VE1</td>
<td>CH Visual Examination Procedure – CCP-TP-113 Description – CH Characterization performed utilizing Visual Examination (VE) and Acceptable Knowledge (AK)</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>*TBD (S3000) N/A (S4000) YES (S5000)</td>
<td>YES</td>
</tr>
<tr>
<td>11VE2</td>
<td>Off-Site Source Recovery Program Procedure(s) – CCP-TP-069 and CCP-TP-101 Description – Characterization performed utilizing Visual Examination (VE) and Acceptable Knowledge (AK)</td>
<td>Debris (S5000)</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>
Processes and Equipment to be Evaluated During Audit A-18-14 of the LANL/CCP (cont.)

<table>
<thead>
<tr>
<th>WIPP #</th>
<th>Process/Equipment Description</th>
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<th>Currently Approved by EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Acceptable Knowledge Procedure – CCP-TP-005, Description – Acceptable Knowledge (AK)</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>*TBD (S3000) YES (S4000) YES (S5000)</td>
<td>YES</td>
</tr>
<tr>
<td>N/A</td>
<td>Data Verification and Validation Procedure(s) – CCP-TP-001, CCP-TP-002, CCP-TP-003, CCP-TP-103, CCP-TP-162, Description – Project Level Data Verification and Validation</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>*TBD (S3000) YES (S4000) YES (S5000)</td>
<td>YES</td>
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<tr>
<td>N/A</td>
<td>WIPP Waste Information System/Waste Data System (WWIS/WDS) Procedure – CCP-TP-030, Description – CH TRU Waste Characterization and WWIS Data Entry</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>*TBD (S3000) YES (S4000) YES (S5000)</td>
<td>YES</td>
</tr>
<tr>
<td>N/A</td>
<td>Quality Assurance Program</td>
<td>*Solids (S3000) Soils/Gravel (S4000) Debris (S5000)</td>
<td>N/A</td>
<td>YES</td>
</tr>
</tbody>
</table>

*CBFO lifted suspension of certification activities associated with all SCG S3000 waste at the Waste Characterization, Reduction and Repackaging Facility (including remediated nitrate salts [RNS]) via August 14, 2017 letter CBFO:ONTP:JS:RMS:17-2016:UFC 5900 00. The CBFO is now requesting certification and characterization activities for the SCG S3000 homogenous solids waste and for the MILCC#3 nondestructive assay equipment to be evaluated. These were indeterminate during A-17-17.

**New equipment to be evaluated at TA-55 (MILCC3).