DoE F 1325 8

United States Government

memorandum

DATE: May 5, 2011

REPLY TO CBFO: OQA: DSM: MAG: 11-0555: UFC 2300.00

ATTN OF: Recertification Audit A-11-14 of the INL/CCP Transuranic Waste Activities

SUBJECT: Jerry L. Wells, DOE-ID

TO: Please be advised that a team of auditors and technical specialists from the Carlsbad Field Office (CBFO) will conduct an audit of the Idaho National Laboratory Central Characterization Project (INL/CCP) at the INL/CCP facilities near Idaho Falls, Idaho, and at the CBFO Skeen-Whitlock Building in Carlsbad, New Mexico, June 7-9, 2011. The audit will be conducted in accordance with the attached audit plan. The purpose of the audit is to determine whether transuranic waste characterization and transportation activities should be recertified by CBFO for the Waste Isolation Pilot Plant (WIPP).

Representatives from CBFO and the New Mexico Environment Department (NMED) may be present to observe the audit process. Representatives from the U.S. Environmental Protection Agency (EPA) may be present to conduct an independent inspection.

Your representatives are requested to coordinate with the audit team to develop the necessary documentation for the audit team to access the INL/CCP facilities and conduct the audit, and to have access to necessary documentation and records. Please provide meeting rooms to hold approximately 50 people for the entrance and exit meetings, working rooms for the audit team, the NMED observers, and the EPA inspectors, as well as a full set of documentation applicable to INL/CCP work for the WIPP, including applicable procedures.

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

D. Miehls, CBFO
J. R. Stroble, CBFO
H. Budweg, CBFO
N. Castaneda, CBFO
W. Lattin, DOE-ID
D. Haar, WTS/CCP
D. Ploetz, WTS/CCP
V. Cannon, WTS/CCP
A. J. Fisher, WTS/CCP
M. Walker, WTS/CCP
Y. Salmon, WTS/CCP
M. Eagle, EPA
E. Feltcorn, EPA
S. Ghose, EPA

R. Lee, EPA
J. Kieling, NMED
S. Holmes, NMED
T. Hall, NMED
T. Kesterson, DOE OB WIPP NMED
D. Winters, DNFSB
P. Gilbert, LANL-CO
G. Lyshik, LANL-CO
T. Bowden, CTAC
K. D. Martin, CTAC
WIPP Operating Record
CBFO QA File
CBFO M&RC

*ED denotes electronic distribution.
CARLSBAD FIELD OFFICE AUDIT PLAN

Audit Number: A-11-14

Organization to be Audited: Idaho National Laboratory
Central Characterization Project (INL/CCP)

Organizations to be Notified:
U.S. Department of Energy -- Idaho Falls (DOE-ID)
U.S. Environmental Protection Agency (EPA)
Washington TRU Solutions, LLC (WTS)
New Mexico Environment Department (NMED)
Defense Nuclear Facilities Safety Board (DNFSB)

Date and Location:
June 7 – 9, 2011
Idaho Falls, Idaho
Carlsbad, New Mexico

Audit Team:
Tamara Bowden Audit Team Leader, Carlsbad Field Office Technical Assistance Contractor (CTAC)
Dennis S. Miehls Carlsbad Field Office (CBFO), Management Representative
Randall Allen Auditor/Audits & Assessments Manager, CTAC
Katie Martin Auditor, CTAC (VE)
Cindi Castillo Auditor, CTAC (HSG, GGT, Flam Gas)
Greg Knox Auditor, CTAC (RTR)
Rick Castillo Auditor, CTAC (NDA & DTC)
Norm Frank** Auditor, CTAC (AK)
Tommy Putnam Auditor, CTAC (Transportation)
Jack Walsh** Auditor, CTAC (C6 QA)
Porf Martinez Technical Specialist/Auditor, CTAC (RTR)
Paul Gomez Technical Specialist, CTAC (PL V&V)
Charleen Roberts** Technical Specialist, CTAC (AK)
Rhett Bradford Technical Specialist, CTAC (VE)
B.J. Verret Technical Specialist, CTAC (HSG, GGT, Flam Gas)
Dick Blauvelt** Technical Specialist, CTAC (AK)
Jim Oliver Technical Specialist, CTAC (NDA & DTC)
Joe Willis Technical Specialist, WTS (Transportation)
Steve McGonagill Technical Specialist, WTS (Transportation)

** Identifies personnel auditing in Carlsbad, NM
Audit Scope:

The audit team will evaluate the continued adequacy, implementation, and effectiveness of INL/CCP transuranic (TRU) waste activities as they relate to the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP) for characterization and certification of contact-handled (CH) Summary Category Group (SCG) S3000 homogeneous solids, S4000 soils/gravel, S5000 debris, and remote-handled (RH) S3000 homogeneous solids and S5000 debris waste.

The scope includes evaluation of validation and verification (V&V) of data resulting from headspace gas (HSG) samples and soils/gravel samples collected by INL/CCP and solid samples collected by the Advanced Mixed Waste Treatment Project (AMWTP) and analyzed by the INL/CCP laboratories. The specific items to be audited are listed under Activities to be Audited.

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 and C6-3-related quality assurance (QA) activities in Carlsbad, NM**

- Personnel Qualification and Training
- Records
- Quality Improvement/Nonconformances
- WIPP Waste Information System (WWIS)/Waste Data System (WDS)

The following technical elements will be evaluated for compliance with the HWFP, utilizing the checklists in Attachment C6:

**Carlsbad, NM**

- Project-Level Data Validation and Verification
- Acceptable Knowledge (AK)
- Waste certification (e.g., Waste Stream Profile Form)

**INL (Idaho Falls)**

- Real-time radiography (RTR)
- Visual examination (VE)
- Headspace gas (HSG) sampling
- Solids sampling of soils/gravels
See the attachment, Process and Equipment to be Reviewed During Audit A-11-14 of INL/CCP, for additional details.

**Governing Documents/Requirements:**

Adequacy of INL/CCP documents will be based on the current revisions of the following documents:

- NM4890139088-TSDF, Waste Isolation Pilot Plant Hazardous Waste Facility Permit
- DOE/CBFO-94-1012, Quality Assurance Program Document (QAPD)
- DOE/WIPP-02-3214, Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)
- DOE/WIPP-02-3122, Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)
- TRUPACT-II Safety Analysis Report: TRUPACT-II Authorized Methods for Payload Control (TRAMPAC), and the TRUPACT-II Certification of Compliance NRC 71-9281

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

- CCP-PO-001, CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)
- CCP-PO-002, CCP Transuranic Waste Certification Plan
- CCP-PO-003, CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)
- CCP-PO-505, CCP Remote-Handled Transuranic Waste Authorized Methods
Schedule of Audit Activities:

A pre-audit conference will be held Tuesday, June 7, 2011, at 8:00 a.m.

Audit team caucus meetings will be held Tuesday and Wednesday, June 7 – 8, 2011, at 4:00 p.m.

An audit team caucus meeting will be held Thursday, June 9, 2011, at 2:00 p.m.

Daily management briefing will be held Wednesday and Thursday, June 8 – 9, 2011, at 8:30 a.m.

A post-audit conference is scheduled for Thursday, June 9, 2011, at 4:00 p.m.

All meetings will take place at the designated INL and CBFO locations.

Prepared by: Tamara D. Bowden, CTAC Audit Team Leader

Date: 5/3/11

Concurrence: Martin P. Navarrete, CBFO Acting Quality Assurance Director

Date: 5-4-11
### Processes and Equipment to be Reviewed During Audit A-11-14 of the INL/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>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>NEW PROCESSES OR EQUIPMENT</strong></td>
<td></td>
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<tr>
<td></td>
<td>NONE</td>
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<td><strong>PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT</strong></td>
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<td>TBD</td>
<td>Visual Examination</td>
<td>Debris (S5000)</td>
<td>YES</td>
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<td></td>
<td>Procedure – CCP-TP-113 and CCP-TP-163</td>
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<td></td>
<td>Description – Visual Examination</td>
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<tr>
<td>14VE1</td>
<td>Visual Examination (VE)</td>
<td>Solids (S3000)</td>
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<td>Procedure – CCP-TP-006</td>
<td>Soils (S4000)</td>
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<td>Description – Visual Examination Technique (VET)</td>
<td>Debris (S5000)</td>
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<td>14RHVE1</td>
<td>Visual Examination</td>
<td>Solids (S3000)</td>
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<td>Procedure – CCP-TP-500</td>
<td>Soils (S4000)</td>
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<td>Description - The VE of audio/video media process used for a total of 70 retrievably stored remote-handled (RH) debris waste drums</td>
<td>Debris (S5000)</td>
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<td>14RR2</td>
<td>Nondestructive Examination</td>
<td>Solids (S3000)</td>
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<td>Procedure – CCP-TP-053</td>
<td>Debris (S5000)</td>
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<td>Equipment – MCS RTR-5</td>
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<td>Description – MCS Real-time Radiography (RTR) Mobile Characterization (RTR-5) System</td>
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<td>14RRH1</td>
<td>Nondestructive Examination</td>
<td>Debris (S5000)</td>
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<td>Procedure – CCP-TP-508</td>
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<td>Equipment – RTR-RTR-0659</td>
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<td>Description – VJ Technologies, Real-time Radiography Characterization (RTR-RTR-0659) System</td>
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<td>Gas Generation Testing</td>
<td>Waste Type IV</td>
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<td>Procedure – CCP-TP-083</td>
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<td>Equipment – MGSS Unit/Cart 1 (GC-14B)</td>
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<td>Description – Gas Generation Testing 55-gallon drums</td>
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<td>14GG2</td>
<td>Gas Generation Testing</td>
<td>Waste Type IV</td>
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<td>Procedure – CCP-TP-083</td>
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<td>Equipment – MGSS Unit/Cart 2 (GC-17A)</td>
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<tr>
<td></td>
<td>Description – Gas Generation Testing 55-gallon drums</td>
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<tbody>
<tr>
<td>N/A</td>
<td>Acceptable Knowledge</td>
<td>Solids (S3000), Soils (S4000), Debris (S5000)</td>
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<td>N/A</td>
<td>Solids/Soils and Gravel Sampling and Custody</td>
<td>Solids (S3000), Soils (S4000)</td>
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<td>N/A</td>
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<td>N/A</td>
<td>Solids/Soils and Gravel Sampling and Custody for RH</td>
<td>Solids (S3000)</td>
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<td>N/A</td>
<td>SUMMA® Headspace Gas (HSG) Sampling and Custody</td>
<td>Debris (S5000)</td>
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<td>N/A</td>
<td>Data Validation and Verification</td>
<td>Solids (S3000), Soils (S4000), Debris (S5000)</td>
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<td>N/A</td>
<td>WIPP Waste Information System (WWIS)</td>
<td>Solids (S3000), Soils (S4000), Debris (S5000)</td>
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<td>14SHC1</td>
<td>Nondestructive Assay Procedure – CCP-TP-146 Description – CCP Super High Efficiency Neutron Counter</td>
<td>Solids (S3000), Debris (S5000)</td>
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<td>Nondestructive Assay Procedure – CCP-TP-107 Description – CCP High Efficiency Neutron Counter</td>
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<td>14SGRS1</td>
<td>Nondestructive Assay Procedure - CCP-TP-115 Description - Stored Waste Examination Pilot Plant (SWEPP) Gamma Ray Spectrometer (SGRS)</td>
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<td>14WAGS1</td>
<td>Nondestructive Assay Procedure - CCP-TP-019 Description - Waste Assay Gamma Spectrometer</td>
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<td>14DTC1</td>
<td>Radiological characterization process using dose-to-curie (DTC) and modeling-derived scaling factors for assigning radionuclide values to RH waste stream Dose-rate fractional contribution of Cs-137 and Co-60 using OSPREY LaBr(Ce) gamma detector Procedure CCP-TP-504</td>
<td>Solids (S3000) Debris (S5000)</td>
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<td>Load Management</td>
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<td>Quality Assurance Program</td>
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