

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

DATE: December 30, 2010

REPLY TO  
ATTN OF: CBFO:QA:DSM:GS:10-2413:UFC 2300.00

SUBJECT: Surveillance S-11-08 of the BAPL/CCP Dose to Curie and Headspace Gas Sampling Processes

TO: Chris Labee, DOE-NRLFO



The Carlsbad Field Office conducted Surveillance S-11-08 of the Bettis Atomic Power Laboratory Central Characterization Project (BAPL/CCP) Dose to Curie and Headspace Gas Sampling characterization processes. The surveillance was conducted December 07-08, 2010. The surveillance report is attached.

The surveillance team concluded that the BAPL/CCP technical and quality assurance programs for the processes evaluated were adequate, satisfactorily implemented, and effective.

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

A handwritten signature in black ink that reads "Dennis S. Miehls".

Dennis S. Miehls  
Acting Director, Quality Assurance

Attachment

101229



Chris Labee

-2-

December 30, 2010

cc: w/attachment

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CBFO M&RC	

\*ED denotes electronic distribution

## CBFO SURVEILLANCE REPORT

**Surveillance Number:** S-11-08    **Date of Surveillance:** December 07 – 08, 2010

**Surveillance Title:** Bettis Atomic Power Laboratory Central Characterization Project (BAPL/CCP) Headspace Gas Sampling and Dose to Curie Surveillance

**Organization Surveilled:** BAPL/CCP

### Surveillance Team:

Paul C. Gomez	Surveillance Team Leader, CBFO Technical Assistance Contractor (CTAC)
Jim Oliver	Technical Specialist, CTAC

### Surveillance Scope:

The scope of the surveillance was to observe and evaluate the headspace gas sampling (HSGS) and dose to curie (DTC) processes being used at the BAPL/CCP in support of characterization of waste containers to be shipped to the Waste Isolation Pilot Plant (WIPP).

### Surveillance Purpose:

This surveillance was intended to provide assurance that BAPL/CCP HSGS and DTC operations were adequate, satisfactorily implemented, and effective. The surveillance team focused on evaluation of HSGS processes, sample custody, sample preparation, sampling procedures, and DTC measurements, calculations, and reporting.

### Activities Evaluated:

**DTC** – The surveillance team observed the removal of the waste drum from the site-only steel overpack used for site radiation protection purposes. The drum was weighed and subsequently transferred to a drum rotator with attached support jig for the dose measurement probe. The system for obtaining measurements at 90 degree increments of drum rotation was explained and subsequently demonstrated. Site personnel further demonstrated that the dose measurement was obtained at the midline of the waste drum at a distance of 1 meter. The Bettis drum container number identified the container as high-pressure inner container (HIP)-41-30-3, which records indicate contains HIP 41-30.

The DTC operations logbook was reviewed. All data regarding the Bettis remote-handled (RH) waste has been collected since 12-1-10, so all entries for the period from 1-1-10 until 12-8-10 were reviewed. Operations personnel were interviewed to verify knowledge of requirements and "spot check" some data entry practices.

The surveillance team further reviewed all data that had been collected since the start of operations. Data collected for containers numbered: 41-23-10; 41-20-1; 41-16-8; 41-6-10; 41-33-9; 41-24-7; and 41-30-3 at the data generation level (DGL).

Overall, the surveillance team determined DTC activities were adequate, satisfactory, and effective.

**Headspace Gas Sampling** – The surveillance team observed HSGS of the drum containing HIP-41-30 after the completion of the DTC measurements. The drum container number identified on the container is HIP-41-30-3. The team observed the sampling team collecting the sample and recording the information on the chain of custody form. Each of the drums has a side port filter (NucFil-19DS) for the sampling event. Upon completion of the collection activity for the HIP-41-30-3 drum, the surveillance team reviewed the collection of data forms completed to date. The custody forms that were in process at the time of the surveillance had entry errors on them concerning the site identification and the format of the sample date. The surveillance team informed the sampling team and the concern was corrected during the surveillance (CDS) using proper pen and line-out correction. See Corrective Actions section of this report (CDS 1). During the course of the surveillance, the operator explained how the field blank sample was collected.

Other items observed during the surveillance included the Dickson Temperature Gauge (XC0856) used for the 72-hour equilibrium time where the drums are stored prior to HSGS. Proper sampling time and drum age criteria were evaluated and met for the sampling event.

The surveillance team evaluated the in-process custody records, sample tags, drum age criteria data sheets, and the field reference standard canister provided by the HSGS operators. The team determined that the HSGS operations were satisfactory and procedures were effectively implemented.

#### **Governing Documents/Requirements:**

Evaluation of the overall program adequacy and effectiveness of BAPL/CCP documents was based on the current revisions of the following documents:

- DOE/CBFO-94-1012, *CBFO Quality Assurance Program Document (QAPD)*
- NM4890139088-TSDF, Waste Isolation Pilot Plant Hazardous Waste Facility Permit, the New Mexico Environment Department
- DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*
- DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*
- CCP-TP-504, *CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste*
- CCP-TP-093, *CCP Sampling of TRU Waste Containers*
- CCP-QP-002, *CCP Training and Qualification Plan*
- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*

- CCP-QP-008, *CCP Records Management*
- CCP-QP-011, *CCP Laboratory Logbooks*
- CCP-QP-016, *CCP Control of Measuring and Testing Equipment*

**Surveillance Results:**

The results of the surveillance indicate that the BAPL/CCP characterization activities related to HSGS and DTC operations are adequate, satisfactorily implemented, and effective.

**Corrective Actions:**

CDS 1

Attachment 1, Chain of Custody/Canister Tag (#0001-), does not follow the convention provided in section 4.5.3[J.1], 4.5.4[Q.1], and 4.5.5[Q.1] of the sampling procedure, CCP-TP-093, Rev. 13, *CCP Sampling of TRU Waste Containers*. The site abbreviation (zz) and sample date format when recording the date on the form was not followed. The operators reviewed the concern information and corrected the entries during the surveillance.

Previous Concerns

Concerns identified during the previous BAPL/CCP surveillance (S-10-37) performed September 21-22, 2010 were in the area of administrative control of laboratory notebooks, and CCP had not assigned a Vendor Project Manager (VPM) for BAPL. These concerns and resolutions are explained below.

BAPL/CCP now has an assigned VPM per CCP-PO-511, *CCP/BAPL RH TRU Waste Interface Document*; therefore, compliance with Conduct of Operations process requirements has now been demonstrated. The previous log information has been reviewed by a qualified VPM since the last surveillance, and the current VPM has demonstrated weekly review of the logbooks.

Surveillance Team Leader:



Paul C. Gomez, CTAC

Date: 12/30/10

CBFO QA Director Approval:



Dennis S. Miehl, CBFO  
Acting Director, Quality Assurance

Date: 12-30-10

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