

United States Government

Department of Energy

# memorandum

Carlsbad Field Office  
Carlsbad, New Mexico 88221

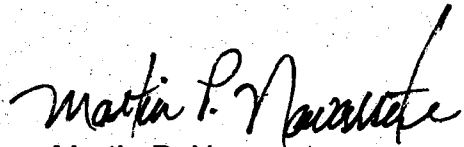
DATE: November 6, 2003  
REPLY TO  
ATTN OF: CBFO:QA:MPN:GS:03-2939:UFC 2300.00  
SUBJECT: Closure of Corrective Action Report 04-006  
TO: Brian Edgerton, DOE-ID  
Richard Cullison, DOE-ID



The Carlsbad Field Office (CBFO) performed verification of corrective action completion for Corrective Action Report (CAR) 04-006. The corrective actions taken and implemented for this CAR have been evaluated by review of the objective evidence submitted in the CAR closure package transmitted via BNFL Inc. letter AM-BN-L-6110 dated October 27, 2003. The results of the evaluation indicate that AMWTP has adequately addressed the issue identified in CAR 04-006 and has adequately implemented the corrective actions for this issue. Based upon this evaluation it has been determined the AMWTP has satisfactorily implemented the necessary corrective actions and actions to preclude recurrence to close this CAR.

CAR 04-006 has been closed based on the CBFO verification of the corrective actions. The CAR continuation sheet documenting verification of corrective action completion and closure of the CAR is attached.

If you have any questions or comments, please contact me at (505) 234-7483.

  
Martin P. Navarrete  
Quality Assurance Specialist

Attachments

031106



Edgerton/Cullison

-2-

November 6, 2003

cc:

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CBFO QA FILE	
CBFO M&RC	

# BFO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. : 04-006

2. Activity Report No. A-03-05 CAR Closure  
Verification

3. Page 1 Of 2

## Corrective Action Plan (CAP)

### A. Remedial Action

Immediately issued AMWTP NCR 3629 to document and evaluate the condition for impact on data collected for WIPP reporting. NCR 3629 contained a list identifying all affected drums (and associated Batch Data Reports) that have been subjected to nondestructive assay measurements, and Batch Data Report validation status.

Ceased generating Assay Batch Data Reports (BDRs) because the waste tracking system (WTS) was incorrectly using the total alpha activity to determine the calculated TRU alpha activity concentration that appears on the Radioassay data sheet.

Identified six Assay Batch Data Reports that had been previously validated and were potentially affected by the condition. Assay batches that contained a discrepancy of >1% TRU alpha activity concentration were identified for ITR level re-evaluation and re-validation following correction of the calculation discrepancy. The following Batches were identified:

ASY03-00146 ASY03-00172 ASY03-00173  
ASY03-00190 ASY03-00193 ASY03-00159

The affected containers that were identified in Assay batches ASY03-00190, ASY03-00193, and ASY03-00159 had been previously statused in the WTS as Non WIPP reportable measurements for other reasons. As a consequence, these BDRs did not require demotion and re-validation. The remaining three Assay BDRs listed had valid container assays with a >1% discrepancy for TRU alpha activity concentration and were demoted for re-validation with corrected results

### Verification Results

Verified the issuance of NCR 3629 and the correction of BDRs ASY-03-00146, ASY03-00172, and ASY03-00173 through the review of the objective evidence submitted in the CAR closure package transmitted via BNFL Inc. letter AM-BN-L-6110 dated October 27, 2003. The corrective actions were found to be satisfactory.

### B. Investigative Actions - Extent and Impact of the Deficiency

Using Total alpha activity instead of TRU alpha activity in the calculation of TRU alpha activity concentration may cause a positive bias in the results. This Total alpha activity bias could lead to reporting assays with TRU alpha activity concentrations of  $\leq 100$  nCi/g as suitable for direct shipment to WIPP.

Evaluation determined that significant bias is isolated to drums containing large quantities of Depleted Uranium where a non-zero TRU alpha activity concentration value is reported when the actual value is 0 nCi/g. However, in all cases the reported value is  $< 100$  nCi/g.

Upon evaluation of all waste assays performed at AMWTP, there are no containers mis-reported as TRU waste. Further, the bias is insignificant (<1% variation) for assays with significant Pu content due to TRU alpha activity being approximately equal to Total alpha activity. These data are acceptable to "Use As Is."

### Verification Results

Reviewed the above investigative actions and found them to be satisfactory.

# WFO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. : 04-006

2. Activity Report No. A-03-05 CAR Closure  
Verification

3. Page 2 Of 2

## Corrective Action Plan (CAP)

### C. Corrective Actions to Preclude Recurrence

Create a Software Change Request, SCR-290, to correct WTS TRU alpha activity concentration calculation and apply the corrected calculation in order to rework existing assay data. An independent physicist validation of the calculation and results was conducted as part of the SCR implementation prior to installation and re-work of the assay results. The SCR was completed, tested, and implemented, and results validated.

### Verification Results

Verified that AMWTP created Software Change Request SCR-290 to correct the software issue and ran the appropriate tests to verify and validate the software change through review of the objective evidence submitted in the CAR closure package transmitted via BNFL, Inc. letter AM-BN-L-6110 dated October 27, 2003. The corrective actions were found to be satisfactory.

Based on the above supporting documentation and actions, it is recommended that this CAR be closed.

Block 19a : Verifier:  Date: 11/5/03

Jeffrey D. May

Block 19b: Trend Cause Code: 4.1