

United States Government

Department of Energy

memorandumCarlsbad Field Office
Carlsbad, New Mexico 88221

DATE: April 6, 2002

REPLY TO
ATTN OF: CBFO:QA:ALH:GS:02-1018:UFC 2300.00

SUBJECT: Evaluation and Closure of Corrective Action Reports from Audit A-02-07

TO: Lam Xuan, Manager TRU Waste, RFFO

The Carlsbad Field Office (CBFO) has evaluated the Corrective Actions for Corrective Action Reports (CARs) 02-045 through 02-049, 02-051, and 02-052. The results of the evaluation indicate that RFETS has adequately addressed the issues identified in the CARs. The evaluation results are documented on the attached CAR Continuation Sheets. The CARs has been closed by CBFO.

The only CAR that remains open is CAR 02-050 concerning nondestructive assay (NDA) software. If you have any questions or comments, please contact me at (505) 234-7423.

Ava L. Holland //signature on file//
Ava L. Holland
Quality Assurance Manager



Attachments

cc w/attachments:

K. Watson, CBFO	*ED
G. Morgan, RFFO	*ED
J. Schneider, RFFO	*ED
G. O'Leary, RFETS	*ED
F. Grady, RFETS	*ED
B. Walker, EEG	*ED
S. Zappe, NMED	*ED
M. Eagle, EPA	*ED
S. Monroe, EPA	*ED
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CBFO Mailroom	

020408



CETO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-045

2. Activity Report No. A-02-07

3. Page _____ Of _____

Block 18 Verification of Corrective Action Completion

Remedial Actions:

- *The Sample Canister Information Document and applicable pages of Batch Data Report HVOC-DP-00556 were corrected during the audit.*
- *The Sample Logbooks for canister HSG were corrected to include all required RF #s. ICN was issued to procedure L-4006 to require adding that the temperature measurement device RF # and date are to be added to the chart before it is removed to become part of the QA records.*
- *Regarding the traceability of temperature recorder charts; Procedure L-4006 was changed via ICN to require adding that the temperature measurement device RF # and date are to be added to the chart before it is removed to become part of the QA records.*

Verified by review of the following:

- Batch Data Report HVOC-DP-00556
- Sample Logbooks
- RFETS procedure L-4006-J, Chain-of-Custody and Sample Administration for Headspace Sample Canisters

Investigative Actions:

- *Other Sample Canister Information Documents were examined and the missing BB mistake was found to an isolated individual error. No other examples were found.*
- *Sample logs were all corrected for recording the applicable measurement references. It was determined that an additional check by the chemist for proper logging of information should be required.*
- *Regarding the traceability of temperature recorder charts included in batch data reports, there is no adverse impact to prior data because none of the temperature charts have ever exceeded the acceptance criteria. The storage temperature requirements for gas samples is very broad, 0 - 40°C.*
- *We are determining if any other Analytical Laboratory devices with calibrations or certifications are traceable when data becomes part of the data package or other QA Record. This applies to all Laboratory areas (Headspace, Metals, VOA, SVOA, and PCB). If problems are identified the applicable procedures will be revised, training performed and effect on data evaluated.*

Verified by review of the following:

- Sample Logbooks
- J.J. O'Brian letter, "B559 Lab Temperature Overview", dated 2/6/02
- E-mails from R. Keller, M. Harris, and W. Grant, regarding balance calibrations, expired standards, and logbooks

Actions to Preclude Recurrence:

- *BB not in individual sample number - Correct specific error in the SCID record.*
- *An Interim Change Notice was issued against procedure L-4146 (Headspace Gas Sampling of Waste Containers) adding that the Chemist checks batch by batch that all of the required information is recorded in the sample logbook.*
- *An Interim Change Notice was issued against procedure L-4006 (Chain-of-Custody and Sample Administration For Headspace Sample Canisters), adding that the temperature measurement device RF # and date are to be added to the chart before it is removed to become part of the QA records.*
- *Personnel have been trained to these procedural changes.*

Verified by review of the following:

- Corrected Sample Canister Information Document for canister B237
- RFETS procedure L-4006-J, Chain-of-Custody and Sample Administration for Headspace Sample Canisters

CETO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-045

2. Activity Report No. A-02-07

3. Page _____ Of _____

Block 18 Verification of Corrective Action Completion (Continued)

- RFETS procedure L-4146-P, Headspace Gas Sampling of Waste Containers
- Training Rosters for ICNs to procedures L-4146-P and L-4006-J

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____
B. J. Verret

Date: _____

Block 19b Trend Cause Code: 2.1

CAR CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-046

2. Activity Report No. A-02-07

3. Page 1 Of 1

Block 18 Verification of Corrective Action Completion

Remedial Actions:

ICN was completed to procedure L-4215-D correcting Table 3 in accordance with Table B3-6 of the WAP.

Verified by review of the following:

- RFETS procedure L-4215-D, GC/MS Determination of Total SVOCs for WIPP
- RFETS procedure L-4039-F, WIPP Data Review and Validation for Semi-Volatile Organic Compounds in Solid Samples

Actions to Preclude Recurrence:

ICN procedures L-4165 and L-4215 to incorporate the manual requirements defined in the WAP Section B3-1 for TIC identification.

Verified by review of the following:

- RFETS procedure L-4215-D, GC/MS Determination of Total SVOCs for WIPP
- RFETS procedure L-4165-L, GC/determination of Volatile Organic Compounds (Solids, Liquids, and TCLP Extracts)
- Training Rosters for ICNs to procedures L-4165-L and L-4215-D

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____
Dorothy Gill

Date: _____

Block 19b Trend Cause Code: 2.1

QAO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-047

2. Activity Report No. A-02-07

3. Page Of 2

Block 18 Verification of Corrective Action Completion

Remedial Actions:

The standards preparation logbook was corrected to include all the standards used in Laboratory gloveboxes. Personnel were re-trained on logbook requirements.

Verified by review of the following:

- Memorandum dated 3/11/02, from Laboratory QAO to File, Subject: WIPP Audit of RFETS, A-02-07, Feb. 4-8, 2002, CAR 02-047
- Training Rosters for Course Title "Logbook Checks, Procedure L-4028-P"

Investigative Actions:

WIPP samples were not run using secondary standards made from expired primary standards. However, procedures are being modified to clarify the use of secondary standards and to prevent their use after expiration of the parent standard. Guidance form SW-846, 8260C, Semi-Volatile Organic Compounds by GC/MS, Section 5.6.2, stating "... All standards should be stored at -10C or less, and should be freshly prepared once a year, or sooner if check standards indicate a problem..." was being followed. Since SW-846 is silent on this issue for VOA, the same guidance was being followed for VOA.

Laboratory operations (Headspace, Metals, VOA, SVOA, PCB) were reviewed and it was determined that the use of primary and secondary standards was in accordance with Good Laboratory Practices. The review of lab operations determined the use of primary and secondary standards are being properly produced, controlled and logged. The incidence identified was isolated.

The ICV was made properly but the logbook entry was in error. The Lab Tech made an error filling out the logbook by indicating the wrong standard was used for the ICV. This ICV was used for an IDL study and no data was affected. The IDL study for Selenium has been rerun to ensure proper documentation.

Verified by review of the following:

- Mark Brugh e-mail dated 2/7/02, regarding use of expired standards
- RFETS NCR No. 2002-000362
- E-mails from R. Keller, M. Harris, and W. Grant, regarding balance calibrations, expired standards, and logbooks
- Y. Mazza letter dated 2/7/02, explaining ICV entry error
- Memorandum to file on QAO verification of logbook correction related to ICV entry

Actions to Preclude Recurrence:

An Interim Change Notice (ICN) will be issued against the VOA and SVOA procedures, L-4165 and L-4215, to prevent secondary standards from being assigned a usable date longer than the primary standard from which they are made. Laboratory personnel will be trained to the ICN.

All logs (Headspace, VOA, SVOA, PCB) will be checked to determine if the same error noted in the Selenium log has occurred in other areas.

L-4028 has been updated to include periodic checks of logbooks by chemists, QA and management.

CLFO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-047

2. Activity Report No. A-02-07

3. Page Of 2

Block 18 Verification of Corrective Action Completion (continued)

Verified by review of the following:

- RFETS procedure L-4215-D, GC/MS Determination of Total SVOCs for WIPP
- RFETS procedure L-4165-L, GC/determination of Volatile Organic Compounds (Solids, Liquids, and TCLP Extracts)
- RFETS procedure L-4028-P, Sample Administration for the Radiological Laboratories
- Training Rosters for ICNs to procedures L-4215-D, L-4165-L and L-4028-P
- E-mails from R. Keller, M. Harris, and W. Grant, regarding balance calibrations, expired standards, and logbooks

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____

Dorothy Gill

Date: _____

Block 19b Trend Cause Code: 2.1

CRFO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-048

2. Activity Report No. A-02-07

3. Page _____ Of _____

Block 18 Verification of Corrective Action Completion

The corrective actions taken by RFETS for CAR No. 02-048 were evaluated and verified. The corrective actions and/or objective evidence was reviewed and found to be satisfactory as follows:

Remedial Actions:

The following remedial actions were taken by RFETS during Audit A-02-07 and were observed by the Audit A-02-07 auditors (See RFETS Closure Document, Attachment 2, CAR 02-048 Remedial Actions).

- Building 440 and Building 664 personnel were verbally reminded to only use TRUPACT-II spare parts that have a part number, part description and WIPP purchase order number assigned and to record this information on the Form 1709.
- Building 440 and Building 664 personnel were verbally instructed to transfer part number, description and WIPP purchase order number to parts package (bag) when a lot of parts is divided or moved into a different package (bag) for any reason.
- Parts packages without a WIPP purchase order number on the package or bag were segregated from other TRUPACT-II parts and tagged hold until an investigation could be performed to re-establish tracibility.

Investigative Actions:

The following investigative actions were taken by RFETS for CAR 02-048 (See RFETS Closure Document, Attachment 3, CAR 02-048 Investigative Actions).

- A comprehensive bench stock inventory was performed to verify part number, description, purchase order number and shelf life, as applicable for all TRUPACT-II spare parts in Building 440 and Building 664.
- Westinghouse was contacted for parts that were missing information to determine if the required tracibility could be re-established before the parts were purged from the RFETS TRUPACT-II spare parts inventory.
- Purchase order numbers were identified for all of the parts listed in Block 9 of this CAR.
- A review of Form 1709 maintenance records by RFETS indicated that no parts had been used that did not have a WIPP purchase order number.

Supporting documentation submitted and reviewed for closure:

1. Copy of Building 440 TRUPACT-II spare parts inventory performed 2/18/02
2. Copy of Building 664 TRUPACT-II spare parts inventory performed 2/18/02
3. L. Lewis e-mail dated 2/20/02 on results of TRUPACT-II spare parts inventory.
4. L. Lewis e-mail dated 2/25/02 on recovery of P.O. numbers for suspect parts.
5. L. Lewis e-mails dated 3/5/02 and 3/6/02 regarding use of suspect parts.

CDO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-048	2. Activity Report No. A-02-07	3. Page _____ Of _____
<p>Telecom with Leslie Lewis, RFETS to verify that small parts marked "pulled" on the Building 664 Inventory list had been removed from the inventory. In addition, verified that several of the of the "Go/No Go gauges" were returned to WIPP.</p>		
<p>Actions to Preclude Recurrence:</p>		
<p>The following actions to preclude recurrence were taken by RFETS for CAR 02-048 (See RFETS Closure Document, Attachment 4, CAR 02-048 Actions to Preclude Recurrence).</p>		
<ul style="list-style-type: none">• RFETS personnel were trained on proper use of filling out Form 1709 maintenance form, including recording part description, part number when spare parts are used.• RFETS TRU Waste Characterization and Shipping will verify the proper labeling of TRUPACT-II spare parts received at RFETS from WIPP before they are turned over to RFETS Operations.• The labeling requirements for spare parts in the TRUPACT-II Operating and Maintenance Instructions were reviewed with Operations personnel.• Operations personnel were instructed to transfer the part number, part description, and WIPP purchase order number to part packages (bags) and/or individual parts when a lot of spare parts is split or transferred to a new or different package (bag) for any reason.		
<p>Reviewed the TRUPACT-II Inventory Spare Parts Briefing materials and Training Rosters for the briefings to RFETS Operations personnel.</p>		
<p>Based on review of the RFETS Closure Document (dated March 18, 2002) submitted for CAR 02-048, telecom with Leslie Lewis on March 26, 2002, and observations of remedial actions taken by RFETS for CAR 02-048 during audit A-02-07, closure of CAR 02-048 is recommended.</p>		
Block 19a.	Verified By: <u>Original by L. Dee Scott</u> Name	<u>03/27/02</u> Date
Block 19b. Trend Cause Code: <u>3.2</u>		

CEO CORRECTIVE ACTION REPORT

(Continuation Sheet)

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Block 18 Verification of Corrective Action Completion

Remedial Actions:

The PATS record packages for 2001-000087, 2001-000101 and 2001-000664 were re-examined for the missing information cited in Block 9 and, in all but one case, sufficient information existed in the records package to determine the correct entry. It was discovered that in fourteen of the seventeen omissions the same page in the record package contained the required information. Fifteen of the seventeen omissions were committed by the same person. For the specific records cited, the forms were corrected.

Verified by review of the following:

- Listing of specific discrepancies found in PATS record packages

Actions to Preclude Recurrence:

Brief 1) PATS coordinators who deal with WIPP-related deficiencies 2) TRU Waste Characterization Program personnel who generate or review WIPP-related PATS forms and 3) managers responsible for the personnel who made the errors recorded above on procedural requirements.

Modify corrective action procedures to include evaluating form completion as a consideration during verification of deficiency closure (when performed).

Verified by review of the following:

- Copies of training material used in briefings
- E-mail from C. Hinkhouse, dated 3/12/02, Training confirmations of PATS personnel
- Training rosters from TWCP personnel
- RFETS procedure 3-X31-CAP-001, Rev. 3, Corrective Action Process

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____
Jack Walsh

Date: _____

Block 19b Trend Cause Code: 2.1

CAR CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-051

2. Activity Report No. A-02-07

3. Page _____ Of _____

Block 18 Verification of Corrective Action Completion

Remedial Actions:

Processing of data packages and paperwork for TRUPACT-II shipments of IDC 312 was immediately suspended on 2/7/02. Processing of data packages for IDC 312 measured on Neutron Multiplicity Counters (NMCs) 1 and 2 will not resume until Total Measurement Uncertainty (TMU) values have been corrected.

Verified by review of the following:

- G. A. O'Leary letter dated 2/18/02, Suspension of IDC 312 Shipments

Investigative Actions:

Both Cal/gamma and NMC have been the NDA systems used at RFETS for radioassay of IDC 312 waste. 319 cans of TRU graphite waste (IDC 312) have been assayed on the Neutron Multiplicity Counters (NMCs) 1 and 2. However, all shipments of IDC 312 waste to WIPP were reviewed and it was confirmed that only waste assayed on Cal/Gamma systems was ever shipped to WIPP. IDC 312 waste assayed on the Neutron Multiplicity Counters (NMCs) 1 and 2 has never been shipped to WIPP.

By 2/8/02, the total measurement uncertainty (TMU) on the NMC was calculated for IDC 312 and determined to be greater than the TMU for IDC 370 by 26%. The revised TMU was then applied to all previous NMC measurements for IDC 312, verifying that the final packaged drums did not exceed the 200-gram FGE \pm 2 sigma limit. A draft TMU report for IDC 312 was prepared and distributed for review on 2/8/02. An approved TMU report for IDC 312 was in place on 2/19/02. Nonconformance report 2002-000205 was prepared on 2/8/02 to address the correction of the TMU data in WEMS and in the testing batch data reports.

Verified by review of the following:

- IDC 312 TMU Report for the Neutron Multiplicity Counters
- NCR 2002-000205 with corrected data for cans of IDC 312

Actions to Preclude Recurrence:

Two procedures will be revised to specify in more detail the requirements for WIPP qualification of both new and existing NDA equipment. Both procedure 1-M60-WPC-001, Waste Process Control, and procedure PRO-1072-NDA-MSQ, Matrix-Specific Qualification for NDA Can Counters, will be revised to specify that additional TMU evaluations will be performed if TMUs are matrix-specific for a particular type of NDA instrument. Required reading of the procedural changes will be distributed to affected personnel.

Verified by review of the following:

- RFETS procedure 1-M60-WPC-001, Rev. 3, "Waste Process Control"
- RFETS procedure PRO-1072-NDA-MSQ, Rev. 1, "Matrix-Specific Qualification for NDA Can Counters"
- Training Roster for procedure PRO-1072-NDA-MSQ

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____
Patrick Kelly

Date: _____

Block 19b Trend Cause Code: 2.1

CAR O CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 02-052	2. Activity Report No. A-02-07	3. Page _____ Of _____
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Block 18 Verification of Corrective Action Completion

Investigative Actions:

The WIPP Qualification Report for the SuperHENC drum counter will be revised to provide the following:

- A detailed technical justification for applying the SWB minimum detectable activities (MDA) to drums.
- The Safeguards Qualification Report, which specifies the range of "waste types or relevant waste matrix characteristics" for drums, will be incorporated into the revised WIPP Qualification Report.
- The informal TMU report prepared by LANL will be incorporated into the revised WIPP Qualification Report.

Verified by review of the following:

- SuperHENC Qualification Report, Section 7
- SuperHENC Qualification Report, Sections 4 & 5 and the Appendices
- SuperHENC Qualification Report, Sections 8 & 10

Actions to Preclude Recurrence:

Additional training for technical personnel preparing qualification reports will be provided. A new Measurements procedure will be prepared providing instructions to specify in more detail the requirements for qualification of both new and existing large package NDA equipment.

Verified by review of the following:

- RFETS procedure PRO-1570-NDA-QUAL, Rev. 0, "Qualification Requirements for NDA Large Package Counters"
- Training Roster for PRO-1072-NDA-MSQ and development of qualification reports
- Training Roster for 1-M60-WPC-001, Waste Control Process

Based on the above supporting documentation, the recommendation is for closure of this CAR

Block 19a Verifier: _____
Patrick Kelly

Date: _____

Block 19b Trend Cause Code: 2.1