

United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: January 3, 2001

REPLY TO
ATTN OF: CBFO:QA:SAV:VW:01-0606:UFC:2300

SUBJECT: Corrective Action Verification for CARs 01-003, 01-004, 01-005 and 01-006

TO: Dale Ormond, DOE-SR

The Carlsbad Field Office (CBFO) has completed the verification of corrective actions for the subject CARs. The corrective actions were found to be satisfactory and the CARs are now considered closed.

CAR 01-002 is still under review pending receipt of SRS's corrective action plans for internal audit findings.

If you have any questions or require additional information concerning CAR closure, please contact me at (505) 234-7423.



Samuel A. Vega
Quality Assurance Manager

Attachments

cc: w/attachments
L. Chism, CBFO
K. Watson, CBFO
B. Crapse, DOE-SR
J. D'Amelio, SRS
M. Mason, SRS
M. Eagle, EPA
S. Monroe, EPA
S. Zappe, NMED
B. Walker, EEG
D. Winter, DNFSB
M. Gerle, WID
J. May, CTAC
J. Schuetz, CTAC



010102.5



CAO CORRECTIVE ACTION REPORT

(continuation sheet)

1. CAR No.: CAR 01-003

2. Activity No.: CBFO A-01-01

3. Page 1 of 2

Block # 18

Verification of Corrective Action Completion

ITEM 1

- Reviewed Ship to WIPP Transuranic Waste Acceptable Knowledge Data Forms that identify the proper waste matrix code. One form exists for each container in the waste stream.
- Reviewed and the "Revised Listing of Candidate Drums for the SRS WIPP Disposal Program", SWE-STW-99-0028, revision 4 dated 12/12/00.
- Reviewed the Acceptable Knowledge Summary Report For Waste Stream: SR-T001-221F-HET/Drums, WSRC-TR-98-00301, revision 4 dated 12/1/00.
- Reviewed documents that establish the Solid Waste Division Manual SW15.7, WIPP Disposal Program Operating Procedures Manual, Procedure-INSP-NDE-01, "Non-Destructive Examination Test Drum" and Procedure INSP-NDE-02, "WIPP Disposal Program Radiography Test Drum Observation" are related to assembling test drums and training radiography personnel. were performed for test drums of waste matrix code S5300, dated 12/5/00.
- Reviewed IPC-6 for Solid Waste Division Manual SW15.7, WIPP Disposal Program Operating Procedures Manual, Procedure-SOP-RTR-01 "Real Time Radiography(RTR)/X-Ray Operations to address the proper waste matrix code, dated 11/29/00.
- Reviewed IPC-3 for Solid Waste Division Manual SW15.7, WIPP Disposal Program Operating Procedures Manual, Procedure-SOP-TVEF-01 "TVEF Operations" to address the proper waste matrix code, dated 11/27/00.
- Reviewed IPC-7 for Solid Waste Division Manual SW15.7, WIPP Disposal Program Operating Procedures Manual, Procedure-SOP-NDA-01 "Non Destructive Assay (NDA) Operations" to address the proper waste matrix code, dated 12/11/00.
- Reviewed memo SWE-STW-2000-00109, dated 12/15/00 documenting the review of Solid Waste Division Manual SW15.7, WIPP Disposal Program Operating Procedures Manual, Procedure-SOP-WWIS-01 "Waste To WIPP Information System (WWIS) Data Entry Operations" the review determined that a change to the procedure was not needed.
- Reviewed IPC-4 for Solid Waste Division Manual WSRC Manual SW18, Solid Waste Administrative and Technical Manual, Procedure WP-AP-0014 "WIPP Disposal Program Data Generation Level Review For Headspace Gas Sampling" to remove all reference to waste matrix codes, dated 11/29/00.
- Reviewed memo SWE-STW-2000-00109, dated 12/15/00 documenting that the letter from J. A. D'Amelio to G. F. Lunsford et al, "Waste Matrix Code Assignment for Transuranic Waste Stream SR-T001-221F-HET" SWE-STW-2000-00035 dated June 5,2000 needed to be voided. The letter has been cancelled.
- Reviewed the revised Solid Waste Operations Training Briefing Guide "Acceptable Knowledge Summary For SR-T001-221F-HET, dated 11/29/00. Reviewed briefing records dated 11/29/00, 12/5/00, 12/6/00, and 12/11/00.
- Reviewed revised Real Time Radiography (RTR)/X-Ray Batch Data Reports 00-RTR-001, dated 12/11/00 and 00-RTR-002 dated 12/11/00 that address the proper waste matrix code. The required Data Generation Level and Project Level have been performed.

CAO CORRECTIVE ACTION REPORT

(continuation sheet)

1. CAR No.: CAR 01-003

2. Activity No.: CBFO A-01-01

3. Page 2 of 2


Block # 18

- Reviewed the revised Visual Examination Batch Data Reports 00-VE-001, dated 12/11/00 and 00-VE-002, dated 12/11/00 that address the proper waste matrix code. The required Data Generation Level and Project Level have been performed.
- Reviewed the revised Non Destructive Assay (NDA) Batch Data Reports 00-NDA-001, dated 12/13/00 and 00-NDA-002, dated 12/13/00 that address the proper waste matrix code. The required Data Generation Level and Project Level have been performed.
- Reviewed the revised Headspace Gas Sampling Batch Data Reports 00-HSGS-001, 002, 003, 004, and 005, dated 12/5/00 to delete the waste matrix code from the cover page.

ITEM 2

- Reviewed memo SWE-STW-2000-00110, dated 12/15/00 documenting the review of each reference document listed in Attachment 2 of the *AK Summary Report for Waste Stream SR-T001-221F-HET*, WSRC-TR-98-00301 to determine whether use of the referenced information is limited. No limitations were identified in the review.
- Reviewed revised Attachment 2 of the *AK Summary Report for Waste Stream SR-T001-221F-HET*, WSRC-TR-98-00301, revision 4, dated 12/5/00 that includes a column titled "Limitations".
- Reviewed memo SWE-STW-2000-00110, dated 12/15/00 stating that since no limitation were identified, a briefing to impacted personnel on the results of the limitations review was not needed.
- Reviewed IPC-3 for WSRC Manual SW18, procedure WP-AP-0002 that was revised to require completion of the "Limitations" column on Attachment 2 of AK Summary Reports dated 12/12/00.

Block # 19a


Verification By Steve Calvert, 12/20/00
Date

Block # 19b

Trend Cause Code: 3.4

CAO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 00-004	2. Activity Report No. A-00-04 ⁰¹⁻⁰¹ / ^{Jan} 12/21	3. Page <u>1</u> Of <u>1</u>
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Block 18 Verification of Corrective Action Completion

The corrective actions taken and implemented for this CAR were verified during a meeting with SRS and CTAC personnel at CTAC Offices in Carlsbad, NM, on December 18, 2000. The corrective actions and objective evidence reviewed and found to be acceptable are as follows:

Remedial Action: Verified completion of remedial actions in accordance with the SRS Corrective Action Plan, Item 1, provided to CTAC on 11-30-00 which included revising two calculations for MDCs for the SRS SGS and PAN systems. The following documents were reviewed:

- WSRC Calculation Number E-CLC-E-00014, Revision 1, dated 12-12-00, Segmented Gamma Scanner (SGS) System Minimum Detectable Concentration
- WSRC Calculation Number E-CLC-E-00013, Revision 1, dated 12-12-00, Passive Active Neutron (PAN) System Minimum Detectable Concentration
- SWMF Operating Experience Training Program Record, SOEP-2000-0052, dated 12-13-00

Item 2 of the CAP states that SRS procedures SW15.7-SOP-NDA-01 and SW15.7-SOP-SGS-01 would be revised. These procedures do not require revision as part of this CAP, and SRS has indicated that they will not be revised, as documented in the December 21, 2000 SRS Memorandum SWE-STW-2000-00112 from J. D'Amelio to M. Mason.

Investigation: Upon investigation SRS found that this condition arose because a calculational error went undetected by the individuals who prepared and checked the documents initially. A statistician was tasked with revising these calculations. The results of this investigation are complete.

Root Cause: This is complete.

Actions to preclude recurrence: Verified to be complete. Implementation of the revised SRS calculation procedures reviewed (listed above under Remedial Action) will prevent recurrence.

The actions specified in SRS's response to this CAR have been verified to be complete and CAR-01-004 is recommended for closure.

Verified by: Patrick Kelly
Patrick Kelly

Date: 12-21-00

Block 19b

Trend Cause Code: 6.1

CAO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 00-005	2. Activity Report No. A- ⁰¹⁻⁰¹ 00-06 / <i>PK</i> / <i>12/1</i>	3. Page <u>1</u> Of <u>1</u>
<p>Block <u>18</u> Verification of Corrective Action Completion</p> <p>The corrective actions taken and implemented for this CAR were verified by reviewing documents provided by SRS personnel during a meeting at CTAC Offices in Carlsbad, NM, on December 18, 2000. The corrective actions and objective evidence reviewed and found to be acceptable are as follows:</p> <p>Remedial Action: Verified completion of remedial actions in accordance with the SRS Corrective Action Plan provided to CTAC on 11-30-00. The following documents were reviewed:</p> <ul style="list-style-type: none"> • WSRC Document <i>Confirmation of Plutonium Isotopic Content for Waste Stream SR-T001-221F-HET</i>, WSRC-RP-2000-00995, Revision 0,; 12-14-00 • WSRC Operation Procedure <i>Non-Destructive Assay (NDA) Operations (U)</i>, SW15.7-SOP-NDA-01, Revision 8, page 39 of 53, IPC -7 • Spreadsheet provided by SRS listing status of all drums assayed to date (Batches 1 through 7) relative to the newly implemented Pu-239/Am-241 criterion • The Acceptable Knowledge Summary Report WSRC-TR-98-00301, Revision 4, December 1, 2000 <p>Investigation: Upon investigation SRS found that Section A.1 of the DOE WAC Revision 7 does not clearly specify that AK needs to be confirmed. However, the requirement for confirmation resides in 40 CFR 194, which is now acknowledged by the site. The results of this investigation are complete.</p> <p>Root Cause: The results of this investigation are complete.</p> <p>Actions to preclude recurrence: Verified to be complete. Implementation of the methodology presented in WSRC-RP-2000-0095, Revision 0 that is implemented in the NDA operational procedure WS15.7-SOP-NDA-01 will prevent recurrence.</p> <p>The actions specified in SRS's response to this CAR have been verified to be complete and CAR-01-005 is recommended for closure.</p> <p>Verified by: <u><i>Patrick Kelly</i></u> Date: <u>12-19-00</u> Patrick Kelly</p> <p>Block <u>19b</u> Trend Cause Code: <u>6.1</u></p>		

CAO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 00-006	2. Activity Report No. A- ⁰¹⁻⁰¹ 00-06 <i>on 12/21</i>	3. Page <u>1</u> Of <u>1</u>
<p>Block <u>18</u> Verification of Corrective Action Completion</p> <p>The corrective actions taken and implemented for this CAR were verified during a meeting with SRS and CTAC personnel at CTAC Offices in Carlsbad, NM, on December 18, 2000. The corrective actions and objective evidence reviewed and found to be acceptable are as follows:</p> <p>Remedial Action: Verified completion of remedial actions in accordance with the SRS Corrective Action Plan provided to CTAC on 11-30-00. The following documents were reviewed:</p> <ul style="list-style-type: none"> • Work Package Continuation Sheet and Work Clearance permit authorizing the isotopic plutonium distribution values to be changed • Design Control File No. J-DCF-E-00002 that changes set points in G-SYD-E-00004, Section 4.1 from <i>Not applicable</i> to directing the reader to the applicable AK indicated in the QAPD • Calculation report N-CLC-E-0078, Revision 0 that changed the Pu-241 value to correct for the ingrowth of Am-241 from Pu-241 decay • NDA Batch reports for Batches 1 through 5, showing the MGA Results sheets with the appropriate isotopic plutonium values (Batch 1 – page 165; Batch 2 – page 196; Batch 3 – page 175; Batch 4 – page 126; Batch 5 – page 145) • TMU Document WSRC-RP2000-00983, Revision 1, December 6, 2000, page 6 • The Acceptable Knowledge Summary Report WSRC-TR-98-00301, Revision 4, December 1, 2000, page 41 <p>Investigation: Upon investigation SRS found that this condition arose when several documents (TMU, AK and SGS documents) were developed in parallel which propagated an inconsistency in the use of AK derived values for the distribution of plutonium isotopes. The results of this investigation are complete.</p> <p>Root Cause: SRS determined the root cause to be a less than adequate control of design field changes, which has been remedied as described in the other sections of this Corrective Action Report. This is complete.</p> <p>Actions to preclude recurrence: Verified to be complete. Implementation of the revised SRS documents reviewed (listed above under <u>Remedial Action</u>) will prevent recurrence.</p> <p>The actions specified in SRS's response to this CAR have been verified to be complete and CAR-01-006 is recommended for closure.</p> <p>Verified by: <u><i>Patrick Kelly</i></u> Date: <u>12-19-00</u> Patrick Kelly</p> <p>Block <u>19b</u> Trend Cause Code: <u>6.1</u></p>		