



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221



March 24, 2005



Mr. Steve Zappe, Project Leader
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, New Mexico 87505-6303

Subject: Revised B6 Checklists and Video Tapes for the Recertification Audit Report
for the SRS/CCP Audit A-05-01

Dear Mr. Zappe:

This letter transmits the revised B6 checklists and video tapes for Carlsbad Field Office (CBFO) Audit A-05-01 of the Savannah River Site/Central Characterization Project (SRS/CCP). The revised B6 checklists address the issues identified in a letter from the New Mexico Environment Department (NMED) dated February 25, 2005. Also enclosed are the responses to the NMED comments.

Please contact the CBFO Quality Assurance Manager, Ava L. Holland, at (505) 234-7423, should you have any questions concerning this revised final audit report.

Sincerely,

Dr. Inés R. Triay
Acting Manager

Enclosure



Mr. Steve Zappe

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March 24, 2005

cc: comments & responses only

K. Watson, CBFO	*ED
A. Holland, CBFO	ED
D. Miehl, CBFO	ED
J. Bearzi, NMED	ED
S. Holmes, NMED	ED
J. Wilburn, CTAC	ED
W. Ledford, CTAC	ED
R. Raaz, WTS	ED
L. Price, LANL	ED

cc: all enclosures except tapes

C. Walker, Trinity Engineering

CBFO QA File

CBFO M&RC

WIPP Operating Record, MS 486-06

*ED denotes electronic distribution

Attachment

NMED COMMENTS AND CBFO RESPONSES FOR THE SAVANNAH RIVER SITE/ CENTRAL CHARACTERIZATION PROJECT (SRS/CCP) FINAL AUDIT REPORT A-05-01

NMED's review indicated that the Audit Report showed less attention to detail than presented in previous Audit Reports. This less rigorous approach to preparation and completion of a satisfactory Audit Report could result in significant deficiencies in future Audit Reports. The body of the Audit Report appears to generally address the applicable elements. However, there are some omissions, errors, and inconsistencies including but not limited to the following items:

1. On two of the five B6 Checklists (Table B6-1, Waste Analysis Plan (WAP) and Table B6-5, Radiography), the header of every page reads: WAP Requirement¹ (*Insert Site*) AUDIT (*Insert #*). SRS/CCP and A-05-01 should be placed within the parenthesis to document the site and audit number.

Response: This has been corrected in the enclosed redline of the B6 checklists.

2. B6 Checklist, Question 11, Procedure CCP-PO-001, Section B-3c is cited. The cited section does not answer the question.

Response: This has been corrected in the enclosed redline of the B6-1 checklist.

3. Corrective Action Report (CAR) 05-005 does not identify in Block 8 the following WAP requirements that were violated:

- Permit Attachment B1, Section B1-3a, Methods Requirements, third paragraph: "Containers whose contents prevent full examination of the remaining contents shall be subject to visual examination unless the site certifies that visual examination would provide no additional relevant information for that container."
- CCP TRU Waste Quality Assurance Project Plan (QAPjP) Section B1-3a, fourth paragraph: "Containers whose contents prevent full examination to the extent expected for the radiography technique and waste form are subject to VE unless the CCP certifies that visual examination would provide no additional relevant information for that container."
- SRS/CCP procedures, CCP-TP-053, Rev.2, "*CCP Standard Real-Time Radiography (RTR) Inspection Procedure*", 4.4.3 Data Entry, 4.4.3 [B], which states: "**IF** a container is identified in the S5000 summary category group that cannot be penetrated by the RTR method because of the presence of lead, or other shielding, **THEN** initiate a Nonconformance report (NCR) in accordance with CCP-QP-005, "*CCP TRU Nonconforming Item Reporting and Control*" to allow the waste container to be tagged for VE."

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Furthermore, the resolution of CAR 05-005 fails to address the lack of appropriate completion of NCRs that was identified as violated in Block 8 (i.e., addressing the failure to complete an NCR as required by the procedure).

Response: The CAR identified the immediate requirement that was violated, i.e., the CCP violated their procedure. There is no requirement in the Permit or the CBFO procedure for corrective action (MP3.1, Corrective Action Reporting) to list all possible requirements that were violated.

The lack of appropriate completion of NCRs was addressed in the Corrective Action Plan for CAR 05-005. Remedial training was provided to the RTR operators and NCR-SRS-0569-04 was issued to control drums previously processed through radiography that contained significant amounts of leaded gloves.

4. As stated in the cover letter, NMED needs further clarification documenting the Permittees justification for closing CAR 05-005 prior to resolution of NCR-SRS-0569-04. NMED also requests a list of all SRS/CCP NCRs for the subject waste streams where the RTR operator identified the presence of any prohibited item in any examined waste container.

Response: There was no need to leave CAR 05-005 open pending closure of NCR-SRS-0569-04. The SRS/CCP NCR process meets the requirements of the Permit and has been audited and approved by CBFO, the Environmental Protection Agency, and NMED. The NCR process is adequate to control further processing of the subject waste containers.

Regarding the acceptable knowledge issues discussed in your cover letter, the acceptable knowledge cited in the closure of the CAR was not "marginally relevant" to the issue of the generation of waste drums containing large quantities of lead-lined gloves. A reasonable conclusion to be drawn from the acceptable knowledge record is that drums containing significant quantities of lead-lined gloves are to be expected, because the gloves were changed out on a regular basis and packaged separately. The statement by NMED that "NMED generally considers personnel interviews to be the least reliable source of process knowledge" is noted, but personnel interviews are an allowable form of acceptable knowledge per Permit Attachment B4, Section B4-2c. The procedures and personnel interviews reviewed during the closure of CAR 05-005 describe waste generation practices for lead-lined gloves dating back to 1980.

The requested NCR list is enclosed.

5. CAR 05-005 Block 8 and Attachment 3, on the first page, quotes Procedure CCP-TP-011, Rev. 15, Step 4.7.14[A]. The correct quote should be CCP-TP-011, Rev. 15, Step 4.7.12[A].

Response: The NMED is correct regarding this typographical error on the CAR. NCR-SRS-0569-04 has the correct step referenced.

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6. It is NMED's understanding that certain RTR tapes were reviewed by CTAC in Carlsbad after the audit concluded at SRS, at the request of the CTAC RTR auditor, to determine the accuracy of operator descriptions of "rubber gloves" versus "lead-lined gloves" in BDRs, in comparison to the RTR tapes. NMED requests copies of these RTR tapes. This will assist in NMED's evaluation and determination of any potential BDR vs. RTR/AK discrepancies (e.g., number of drums affected) and/or any missed NCRs.

NMED notes that these RTR tapes should have been available, at auditor's request, at SRS during the audit.

Response: At the request of CCP, the CTAC radiography auditor did review some radiography tapes in Carlsbad. This review was to validate the CCP's criteria for determining what drums were penetrable vs. impenetrable during CCP's radiography of drums containing significant quantities of leaded gloves as required by steps 2 and 3 of the disposition to NCR-SRS-0569-04. The specific drum numbers reviewed by the CTAC auditor were not recorded.

This review was not part of audit A-05-01, all radiography tapes were available for review during the audit at SRS.

7. Many BDRs submitted as objective evidence for RTR were not properly completed. In the SRS/CCP QAPjP, CCP-PO-001, Rev.8, "CCP TRU Waste Characterization Quality Assurance Project Plan", Table B3-1, Waste Material Parameters and Descriptions have two columns (Waste Material Parameter and Description). It also has twelve rows (Iron-based Metals/Alloys, Aluminum-Based Metals/Alloys, Other metals, Other Inorganic Materials, Cellulosics, Rubber, Plastics (Waste Materials), Organic Matrix, Inorganic Matrix, Soils/Gravel, Steel (Packing Materials), and Plastics (Packaging Materials)). In the BDRs, there are tables to be filled in during the characterization process in which the description and estimated weights are determined. In several of the BDRs (listed below) there are *incorrect* entries, in that lead or other metals are present, but the lead is listed as 'Rubber' and the other metals are not listed with an estimated weight.

<u>BDR Number</u>	<u>Problem</u>
<u>SRSRTR0001</u>	<u>Drums with lead-lined gloves.</u> Drums: SR593168, SR593122, SR593125 and SR593123
<u>SRRTR0899</u>	<u>Drum with electrical cord containing copper.</u> Drum: SR193891
<u>SR4RTR0002</u>	<u>Drum with lead-lined gloves.</u> Drum: SR593122
<u>SRRTR1111</u>	<u>Drums with lead-lined gloves.</u> Drums: SR557550, SR281672, SR244538, SR281819, SR244845, SR557534, SR577572, SR244848, SR244739, SR244968, SR281816 and SR610485

Attachment

Drum with electrical cord containing copper.

Drum: SR176827

SRRTR1393

Drums with lead-lined gloves.

Drums: SR611804, SR611806, HBL02232, SR611074, SR611618, HBL02005, SR545890, HBL02003 and SR557498

Drum with electrical cord containing copper.

Drum: SR557522

SRRTR1192

Drums with electrical cords, electrical motors, electrical devices containing copper.

Drums: FBL03109, SR611482 and FBL01241

SRRTR0917

Drum with electrical device containing copper.

Drum: SR506057

SRSRTR0002

Drums with lead-lined gloves.

Drums: SR593154 and SR593163 (IO also)

Drum with electrical cord containing copper.

Drum: SR609085

SRRTR0637

Drums with electrical devices, electrical cords, electric motors, electrical connectors containing copper.

Drums: FBL-00-0027, SR123548, SR109951 and SR510556

Drums with lead-lined gloves or lead seal.

Drums: SR556882 and SR100503

Response: The referenced BDRs do not include "incorrect" entries. With regard to leaded gloves, Table B3-1 of the Permit identifies leaded rubber gloves as having a waste material parameter designation of "rubber." Accounting for leaded rubber gloves as all rubber is conservative relative to repository performance because rubber contributes to microbial gas generation, whereas lead does not.

In regard to the other examples, as the Permit states in B1-3b, "The radiography system involves qualitative and semiquantitative evaluations of visual displays. Operator training and experience are the most important considerations for assuring quality controls in regard to the operation of the radiography system and for interpretation and disposition of radiography results." When examining heterogeneous debris waste streams, even trained radiography operators will differ in their weight estimates of minor waste material parameter components. Differences in weight estimates like the examples

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noted above have no impact on the ability of the radiography operators to verify the physical form of the waste and the absence of prohibited items.

8. NMED questions why drum SR593122 was put through RTR twice and included in two separate BDRs (SRSRTR0001 and SR4RTR0002). NMED is concerned that the scans were not comparable with each other (For example, the first scan identifies four (4) layers of confinement and no aluminum present while the second scan identifies three (3) layers of confinement and aluminum present, contrary to the first scan.). Therefore, NMED requests both RTR tapes that include drum SR593122.

Response: Drum SR593122 was radiographed on each of the new radiography units that were installed at SRS to generate batch data reports for objective evidence in preparation for the audit. As stated in the response to comment 7, when examining heterogeneous debris waste streams, even trained radiography operators will differ in their weight estimates of minor waste material parameter components. Differences in weight estimates like the example noted above have no impact on the ability of the radiography operators to verify the physical form of the waste and the absence of prohibited items. Also, layers of confinement are difficult for radiography operators to discern with precision. The radiography operators typically count liner bag horsetails in order to determine the layers of confinement. Trained radiography operators may differ in the number of layers of confinement identified for any particular drum. This does not present a compliance issue as long as the layers of confinement identified do not exceed the maximum allowed by the TRUCON Code or the packaging scenario used for drum age criteria (DAC) purposes.

The requested radiography tapes are enclosed with this letter.

9. NMED requests RTR tapes for drums SR244538, SR281819, SR593154, and SR609085. These were identified as possible concerns by the NMED observer during the RTR portion of the audit as a "rubber gloves" versus "lead-lined gloves" operator description issue. NMED also requests RTR tapes from BDRs SRRTR1084 and SRRTR0917.

Response: The requested radiography tapes are enclosed with this letter.