



765 Lindsay Blvd
Idaho Falls, ID 83402
Tel: (208) 524-8484
Fax: (208) 524-4442

July 9, 2004

Ms. Ava Holland
US Department of Energy/CBFO
PO Box 2078
Carlsbad, NM 88221



Subject: Corrective Action Response to CBFO Accelerated Corrective Action Report 04-032 - ED-022-2004

Please find attached BNFL Inc. Corrective Action Plan in response to CBFO accelerated CAR 04-032 received under CBFO Letter CBFO:QA:MPN:VW:04-1540 dated June 29, 2004. This response includes a completed Investigation and Root Cause analysis report, AMWTP-RCA-04-005 and identified Preventive actions to be completed by July 26, 2004.

Please contact me if you have any questions or require additional information regarding this information at 208-557-7062.

Sincerely,

A handwritten signature in black ink that reads "Elvin Dumas". The signature is written in a cursive style.

Elvin Dumas, Quality Assurance Manager
Advanced Mixed Waste Treatment Project

Attachment

- A. Dobson, BNFL Inc. (w/o attachments)
 - E. Schweinsberg, BNFL Inc. (w/o attachments)
 - M. Navarette, CBFO
 - B. Edgerton, NE-ID
 - J. May, CBFO
 - D. Swale, BNFL Inc. (w/o attachments)
 - K. Watson, CBFO
 - J. Wells, NE-ID
 - P. Utley, BNFL Inc. (w/o attachments)
- ED-022-2004

040725



CBFO CORRECTIVE ACTION REPORT

(Continuation Sheet)

1. CAR No. 04-032

2. Activity Report No. N/A

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Remedial Actions:

The following immediate actions were taken to ensure no additional containers were entered into WWIS from Waste Stream BNINW216 that were not identified on Attachment 4, Lot 1 list.

- (1) WWIS data entry was suspended pending evaluation.
- (2) Review of all WWIS data entries for Waste Stream 216 was initiated to confirm no other containers not identified in Attachment 4 of the Certification letter dated 3/9/04 have been certified in the WWIS. A WWIS container report was generated and used to confirm all certified Waste Stream 216 containers are identified on Attachment 4 of the Certification letter. Those containers not currently identified in Attachment 4 were previously identified: Container 10013188 was identified on 6/10/04 and 10013191 was identified on 6/11/04. These containers have been on HOLD in WWIS since they were identified.
- (3) Review of approved Shipments IN040022 and IN040023 waste stream 216 containers against Attachment 4 of the Certification letter to confirm all containers are listed in Attachment 4.
- (4) A Short Term instruction was issued and briefed to Site Project Managers for verification, prior to reconciliation of characterized containers against the Certification Letter Attachment 4 container list. Short Term Instruction # STI-ROM-2004-030, "BNINW 216 Lot 1 verification prior to entry into WWIS" was issued, effective through July 31, 2004.
- (5) AMWTP Waste Certification Officials are confirming on an ongoing basis, any Waste stream 216 containers presented for WWIS entry, against Attachment 4 of the Certification letter.

These actions were completed and verified by BNFL QA on June 24, 2004

Investigative Action and Root cause analysis:

A formal Investigative and Root Causal Analysis was conducted, reference AMWTP-RCA-04-005. The root cause analysis concluded that the underlying cause is attributed to a Work Organization and Planning deficiency. Although the existence of Attachment 4 was clearly a limitation of the AMWTP Certification authority, management recognized the incompleteness of the Lot 1 container list during initial list compilations. The incompleteness of the list was due to the fact that many of Waste Stream BNINW216, Lot 1 containers had not entered the AMWTP characterization processes, resulting in a situation where the containers only carried the historical INEEL identification, and had not yet been assigned an AMWTP container identification. AMWTP container identification numbers were a prerequisite for compilation of the original Lot 1 container list. Despite the recognition of this issue, no formal protocol was established with CBFO to update the list as additional containers were being staged for characterization. A list of containers was being compiled to include as a submitted addendum to the Attachment 4 list. Additionally, there were no procedural controls in place to ensure that new Lot 1 containers did not get submitted for entry into the WWIS until the Lot 1 list could be formally updated, and the Site Project Managers were not verifying candidate characterized BNINW216 waste stream containers against Attachment 4 during data reconciliation. Instead, reliance was placed on WWIS queries to identify any submitted BNINW216 Lot 1 containers that were not on the list.

Root Cause code 6B – Management Problem, Work Organization/Planning Deficiency

Contributing cause 2A – Procedure Problem, Inadequate or defective procedure

E. Dumas

7/9/04

CBFO CORRECTIVE ACTION REPORT

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1. CAR No. 04-032

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Actions to Preclude Recurrence:

- (1) AMWTP Procedure MP-TRUW-8.11, "Data Reconciliation" has been revised under Document Change Request number 2997 to include a procedural verification step to confirm in Lot planning, that candidate characterized BNINW216, Lot 1 waste stream containers are identified on Attachment 4 of the Certification Letter. This revision has been internally reviewed and will be submitted to CBFO for review. COMPLETION DUE DATE: July 26, 2004

E. Dumas
7/9/04

AMWTP-RCA-04-005

RCA Tracking No: AMWTP-RCA-04-005

Location: AMWTP

Department: TRU Programs - Certification

Date of Event: June 23, 2004

Source/Reference Document: AMWTP Certification Authority; CBFO:NTP:KWW:VW:04-1061 dated March 9, 2004; AMWTP Corrective Action Report #6950; CBFO Corrective Action Report #04-032

Problem/Condition Description:

On June 23, 2004 a notification was received that AMWTP container 10002892 had been shipped to WIPP on March 22, 2004, and that Container 100013217 had been entered into the WWIS on 6/23/04 and subsequently rejected. Neither container was identified on the list of containers authorized for shipment on Attachment 4 of the Certification letter referenced above. Attachment 4 is the AMWTP Container ID list for Lot 1 of Waste Stream BNINW216 contact handled homogenous solids. Waste Stream BNINW216 containers that were initially in the above ground Type II storage module inventory were designated as Lot 1 containers. Container 10002892 had been fully characterized and found acceptable for disposal at WIPP. Historical documentation confirmed that this container, historically identified as IDRF741202316, was initially among the inventory stored in the Type II modules.

Analysis Summary:

The following information was determined through investigation into the condition, review of available documents, and interviews with personnel.

The designation of Waste Stream BNINW216 Lot 1 first and second stage sludge containers was required under the Certification Letter to distinguish the above ground inventory which used preliminary solids sampling and analysis data collected by the INEEL during the 3100 cubic meter project. Attachment 4 of the Certification letter identified AMWTP Lot 1 first and second stage containers that could be input into the WIPP Waste Information System (WWIS).

Subsequent lots from Waste Stream BNINW216 containers retrieved from the soilberm in the TSA-Retrieval Enclosure (designated as Lot 2), required additional solids sampling to confirm acceptable knowledge.

The list of containers in Attachment 4 of the Certification letter was provided to CBFO by AMWTP and was compiled through an electronic query of the waste container database of remaining inventory stored above ground. The list of containers provided to CBFO required AMWTP container identification numbers, and it was recognized that a further population of Lot 1 containers had not yet been handled by AMWTP, and therefore had not been given an

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AMWTP container number. At that time not all of the available inventory in Lot 1 had begun AMWTP characterization and thus did not have an AMWTP container number.

The initial report of the available above ground inventory submitted to CBFO included waste containers from two waste streams, BNINW216 and BNINW218. AMWTP was directed to remove the BNINW218 containers from the list as it was not required to list the BNINW218 waste. Review of internal email correspondence dated March 4, 2004 to which this list was attached, determined that the container in question, 10002892 had originally been identified on this report, but was inadvertently omitted when the BNINW218 containers were removed. The final list that was submitted to CBFO contained this omission.

Review of the Acceptable Knowledge Record Review summary, number U122A "Container Inventory Report for WMF-629 through WMF-633" which evaluated a query identifying containers remaining in accessible storage (Type II modules) following completion of the 3100 cubic meter project, included container IDRF741202316 on page 6 of the report. This AK review was completed on May 5, 2003.

Review of the AMWTP Characterization records confirmed that AMWTP container 10002892 was associated with historical container IDRF741202316. This confirms that container 10002892 would fall within the Lot 1 designation.

The incompleteness of the Lot 1 container list was recognized during initial list compilations, however no formal protocol was established with CBFO to update the list as additional containers were being staged for characterization. A list of containers was being compiled to include as a submitted addendum to the Attachment 4 list.

The Site Project Managers were not using the Attachment 4 list during reconciliation of candidate certifiable containers.

The Waste Certification Officials were aware of new Lot 1 containers being presented for WWIS certification and were relying on WWIS queries to identify containers that were not identified on Attachment 4 of the Certification letter.

Informal verbal communications were being held between CBFO and AMWTP personnel on the efforts to compile a list of new Lot 1 containers to addend to the original list in Attachment 4.

A review of the procedures for certification of waste container found no reference to the Lot 1 Certification letter limitation.

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Causal Factors:

Root Cause: Management Problem 6B – Work Organization/Planning deficiency

- The Site Project Managers were not using the Attachment 4 list during reconciliation of candidate certifiable containers. Although the Lot Planning criteria identified in MP-TRUW-8.11, "Data Reconciliation" requires that the candidate containers must be certifiable management did not recognize the need to establish a process to effectively manage a certification limitation such as presented by a list of specific containers limitations.
- No formal protocol was established with CBFO on the process for updating the container list in Attachment 4 when valid Lot 1 containers not identified on Attachment 4, entered the AMWTP characterization process.

Contributing Causes: Procedure Problem 2A – Inadequate or defective procedure

- None of the procedures used to complete the certification process included a requirement or recognition of the Certification limitation for BNINW216 Lot 1 list of containers.

Corrective Actions:

Immediate and Remedial actions:

The immediate corrective actions that were taken include the issuance of a Short Term Instruction and briefing to the Site Project Managers to verify BNINW216 waste stream containers against Attachment 4, prior to reconciliation of characterized containers.

Recommended Preventive Actions:

1. A formal process for submitting additional containers to Attachment 4 needs to be established and concurrence from CBFO received to allow certification of newly characterized containers that meet the BNINW216 Lot 1 designation criteria.
2. MP-TRUW-8.11 must be modified to include a verification of the current listing of Lot 1 containers as part of the lot planning process.

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Documents Reviewed:

CBFO:NTP:KWW:VW:04-1061 dated March 9, 2004

MP-TRUW-8.5, TRU Waste Certification

MP-TRUW-8.11, Data Reconciliation

MP-TRUW-8.16, WWIS Data Transfer

Email correspondence dated March 4, 2004 from K. Boyd to E. Schweinsberg

Acceptable Knowledge Source Document Review Summary report, U122A dated May 5, 2003

Interviewees:

S. Hailey, TRU Program Acceptable Knowledge Expert

E. Schweinsberg, Site Project Manager

R. NeSmith, TRU Programs Technical Support

K. Boyd, TRU Programs Technical Support

D. Hovis, Waste Certification Official

RCA Investigation Team Members:

E. Dumas/AMWTP QA Manager

Method and Level of RCA Performed: Taproot events and causal factors analysis

Contributing Cause(s) of the Problem:

Procedure problem 2A- Inadequate or Defective Procedure

Root Cause of the Problem:

Management Problem 6B – Work Organization/Planning Deficiency

Applicable Cause Code:

See above.

RCA/Investigator (Team Leader) Date:

Elin Dumas 7/9/04

QA Manager: *Elin Dumas* Date: 7/9/04

Waste Programs Manager: *J. Swale* Date: 7/9/04