



## Department of Energy

Washington, DC 20585

QA: QA

**MAR 15 2002**

P. R. Dixon, Laboratory Lead  
Los Alamos National Laboratory  
University of California  
P.O. Box 1663  
Los Alamos, NM 87545

### VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF DEFICIENCY REPORT (DR) BSC-02-D-035 RESULTING FROM THE OFFICE OF QUALITY ASSURANCE (OQA) AUDIT

The OQA staff has evaluated the corrective action of DR BSC-02-D-035 and determined the results to be satisfactory. As a result, the DR is considered closed.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or Donald J. Harris at (702) 794-1467.

OQA:JB-0796

Enclosure:  
DR BSC-02-D-035

*James Blaylock*  
Ram Murthy, Acting Director  
Office of Quality Assurance



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*NWSS07  
2/21/02*

MAR 15 2002

cc w/encl:

N. K. Stablein, NRC, Rockville, MD  
Robert Latta, NRC, Las Vegas, NV  
S. W. Lynch, State of Nevada, Carson City, NV  
Engelbrecht von Tiesenhausen, Clark County, Las Vegas, NV  
J. E. Houseworth, BSC/LBNL, Las Vegas, NV  
R. W. Andrews, BSC, Las Vegas, NV  
G. K. Beall, BSC, Las Vegas, NV  
J. E. Gebhart, BSC, Las Vegas  
S. H. Horton, BSC, Las Vegas, NV  
R. P. Keele, BSC, Las Vegas, NV, M/S 280  
D. T. Krishna, BSC, Las Vegas, NV  
T. J. Wall, BSC, Las Vegas, NV  
D. M. Kunihiro, BSC, Las Vegas, NV  
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F. H. Dove, NQS, Las Vegas, NV  
D. J. Harris, NQS, Las Vegas, NV  
W. J. Glasser, NQS, Las Vegas, NV  
D. G. Opielowski, NQS, Las Vegas, NV  
J. R. Dyer, DOE/YMSCO, Las Vegas, NV  
C. E. Hampton, DOE/YMSCO, Las Vegas, NV  
D. G. Horton, DOE/YMSCO, Las Vegas, NV  
J. M. Replogle, DOE/YMSCO, Las Vegas, NV  
B. M. Terrell, DOE/YMSCO, Las Vegas, NV  
V. W. Trebules, DOE/YMSCO, Las Vegas, NV

ORIGINAL  
DEFICIENCY REPORT STAMP

OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

8.  DEFICIENCY REPORT  
 CORRECTIVE ACTION REPORT  
NO. BSC-02-D-035  
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DEFICIENCY/CORRECTIVE ACTION REPORT

1. Controlling Document:  
AP-2.21Q, Revision 0, ICN 0

2. Related Report No.:  
LANL-ARC-02-02

3. Responsible Organization:  
BSC Science and Analyses

4. Discussed With:  
Paul Dixon, Cleoves Martinez, Sam Archuleta

5. Requirement:  
AP-2.21Q, Attachment 4, Section 1., **Work Scope**, states in part "Also include which organization is responsible for the overall effort and which organizations support the work."

6. Description of Condition:  
Contrary to the above requirement, TWP-NBS-HS-000001, Revision 01, fails to acknowledge Los Alamos National Laboratory (LANL) as a key organization supporting the work documented in Table 1.1, Work Package 4201224UMH, and Section 1.8 Work Package 4201224UMH, Busted Butte Investigation. The scope of work documented in Section 1.8 does not reflect the work activities being implemented at LANL.

7. Initiator: *F. Harvey Dove*  
Floyd H. Dove Date 11/29/01

9. Does a stop work condition exist? (Not required for a DR)  
 Yes  No  
If Yes, Check One:  A  B  C  D

10. Recommended Actions:  
*NONE.*

11. QA Review:  
QAR *Ronald J. Harris* Date *12-3-01*

12. Response Due Date:  
10 Working Days From Issuance

13. DOQA Issuance Approval:  
Printed Name Robert D. Davis Signature *James Blaylock Jr* Date *12/5/01*

22. Corrective Actions Verified:  
QAR *Ronald J. Harris* Date *3/12/02*

23. Closure Approved by:  
DOE/OQA *James Blaylock Jr* Date *3/15/02*

TYPE RESPONSE:

- Initial
- Complete
- Amended

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QA: *LGA*

*12/20/01*

**DEFICIENCY/CORRECTIVE ACTION REPORT (RESPONSE)**

**14a. Immediate Actions:**

Reviews of TWP's in development will be strengthened to ensure clear definition identification of all participating organizations as required by AP-2.21Q. Via Lotus Notes and/or interoffice memoranda, TWP authors will be instructed to designate the responsible/supporting organization(s) as both the BSC organizational entity, as specified in the relevant Responsibility Assignment Matrix, and the national laboratory or subcontractor performing the work.

Compliance Date: 1/15/02

**14. Remedial Actions:**

TWP-NBS-HS-000003, which supercedes TWP-NBS-HS-000001 and became effective after the completion of BSC-ARC-0202, will be reviewed for the incorporation of the organizational details as discussed above and corrected with an addendum as necessary. Additional corrective actions will be based on the findings from the extent of condition and will be identified, along with an expected completion date, in the complete response to this DR.

**15. Extent of Condition:**

Reviews for completeness and clarity of participating organization identification will be conducted on a select set of active TWP's. The select set will include the six (6) TWP's which describe the work activities of the Natural Barriers Department and at least 10 percent of the Engineered Barriers and Testing Department TWP's. The findings from these reviews will be documented and provided to the QAR for verification.

**16. Cause: (Attach results of root cause determination prepared in accordance with AP-16.4Q for a significant deficiency.)**

The cause of this deficiency will be identified during the extent of condition determination and will be described in the complete response to this DR.

**17. Action to Preclude Recurrence:**

Actions to preclude recurrence will be based on the determined cause and the extent of condition. These measures will be described in the Complete response to this DR.

18. Due Date: January 31, 2002

- For submittal of complete response
- For completion of corrective action

19. Response by: James Houseworth

*James Houseworth* Date *12/20/01* Phone *295-7611*

20. Evaluation:  Accept  Partially Accept  Reject

21. Concurrence:

QAR *Ronald J. Harris* Date *12-27-01*

DOQA *James Blumhert* Date *1/3/02*

TYPE RESPONSE:

- Initial
- Complete
- Amended

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QA: *X QA*

*DEC 1/31/02*

**DEFICIENCY/CORRECTIVE ACTION REPORT (RESPONSE)**

**14a. Immediate Actions:**

TWP authors were sent a memo from Robert Andrews on January 14, 2002 instructing them to designate the responsible/supporting BSC organization(s) as specified in the relevant Responsibility Assignment Matrix. Identification of participant groups is not a procedural requirement. However, the memo instructs that if participant groups are identified in the TWP, then these groups should be clearly labeled to distinguish them from RAM organizations. Furthermore, if participant groups are identified, then this should be done consistently and uniformly throughout the TWP.

Compliance Date: 1/15/02

**14. Remedial Actions:**

TWP-NBS-HS-000003, which supercedes TWP-NBS-HS-000001 and became effective after the completion of *see 1/31/02 BSC-ARC-02-02* ~~BSC-ARC-0202~~, was reviewed for the incorporation of the organizational details as discussed above. Although the participants were not uniformly identified, the review found that the procedural requirement (see AP-2.21Q, Attachment 4, Section 1) to "include which organization is responsible for the overall effort and primary organizations which support the work" was fulfilled in Section 1 of the TWP. During the extent of condition review (see box 15), it was found that TWP-MGR-GS-000001, Rev00 does not specifically call out the Disruptive Events Department either in the TWP title or Section 1. Therefore, revision or supersession of this TWP to identify the Disruptive Events Department is needed as a remedial action.

**15. Extent of Condition:**

Reviews for completeness and clarity of participating organization identification were conducted on the following TWPs: TWP-NBS-GS-000002 REV 01, TWP-NBS-GS-000003 REV01, TWP-NBS-MD-000001 REV02, TWP-WIS-MD-000007 REV00, TWP-MGR-GS-000001 REV00, TWP-MGR-MD-000009 REV 00, TWP-MGR-MD-000015 REV01, and TWP-MGR-MD-000018 REV 00. This set of TWPs plus the UZ TWP discussed in box 14 include all Natural Barriers, Engineered Barriers, and Testing Department TWPs. The review found that although there are differences in the identification of participants within TWPs, all TWPs except one (see box 14) identified which (RAM) organization is responsible for the overall effort and primary organizations which support the work, as required by the procedure.

**16. Cause: (Attach results of root cause determination prepared in accordance with AP-16.4Q for a significant deficiency.)**

The cause of this deficiency is a result of confusion concerning the definition of organization per AP-2.21Q. AP-2.21Q, Section 3.5, specifies that "the RAM combines the Organizational Breakdown Structure elements and the Work Breakdown Structure (WBS) elements to form a matrix that identifies the organizations performing the program work". Therefore, organizations that must be identified per AP-2.21Q are those listed in the RAM. The labs (LANL, LBNL, etc.) and subcontracting organizations (DESI, ISSI, etc.) are not "organizations" per AP-2.21Q, and should be referred to as participants to avoid confusion.

**17. Action to Preclude Recurrence:**

The immediate action described in box 14a also serves as the action to preclude recurrence.

**18. Due Date: 15 March 2002**

- For submittal of complete response
- For completion of corrective action

19. Response by: James E. Houseworth

*James E. Houseworth*

Date Jan. 30, 2002

Phone 295-7611

20. Evaluation:  Accept  Partially Accept  Reject

QAR *Donald J. Harris* Date *2/4/02*

21. Concurrence:

DOQA *James Blaylock* Date *2/7/02*

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8.  DR/CAR  
 Stop Work Order  
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DEFICIENCY/CORRECTIVE ACTION REPORT/STOP WORK ORDER CONTINUATION PAGE

Verification and Closure of DR BSC-02-D-035

**Block 14a. Immediate Actions:**

Verified Technical Work Plan (TWP) authors were sent a Lotus Note from Robert Andrews on 1/14/02, clarifying the requirements for the identification of organizations that supports work within the TWPs developed under AP-2.21Q, Revision 1, ICN 0. The Lotus Note included an attachment that addressed the work scope and organization responsible for overall effort and the primary organization supporting the work and Responsibility Assignment Matrix (RAM) that identifies the organizations performing the program work.

**Block 14 Remedial Actions:**

Verified TWP-NBS-HS-000003, Revision 0, effective 12/10/01, superseded TWP-NBS-HS-000001, after completion of audit BSC-ARC-02-02 performed November 13-15, 2001. The TWP-NBS-HS-000003 included the organization responsible for the overall effort and primary organizations that support the work.

No impact on actual work. It was an administrative non-compliance with procedure.

**Block 15. Extend of Condition:**

Verified an Extend of Condition of active TWPs was performed, which included six TWPs describing activities of the Natural Barriers Department and 10 percent of the Engineering Barriers and Testing Department TWPs.

The following TWPs were evaluated:

Natural Barriers:

TWP-NBS-HS-000003, Revision 00  
TWP-NBS-GS-000002, Revision 01  
TWP-NBS-GS-000003, Revision 01  
TWP-NBS-MD-000001, Revision 02  
TWP-WIS-MD-000007, Revision 00  
TWP-MGR-GS-000001, Revision 00  
TWP-MGR-MD-000009, Revision 00

Engineered Barriers:

TWP-MGR-MD-000009, Revision 01  
TWP-MGR-MD-000018, Revision 01

It was concluded that the above TWPs included the organization responsible for the overall work and primary organizations supporting the work as defined in the RAM.

**Block 16: Cause:**

Verified AP-2.21Q, Section 3.5 specifies that the RAM combines the Organization Breakdown Structure (WBS) elements from a matrix that defines the organizations performing the program work. Therefore, organizations that must be identified per AP-2.21Q are those listed in the RAM

**Block 17: Action to Preclude Recurrence:**

The immediate action described in block 14a provides the clarification to preclude recurrence (Robert Andrews, Lotus Note, date 1/14/02).

Based on the above verification, it is recommended that this DR be closed.

QAR Donald J. Harris Date 3/12/02  
Donald J. Harris