



Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
P.O. Box 98608
Las Vegas, NV 89193-8608

JUL 26 1996

L. Dale Foust
Technical Project Officer
for Yucca Mountain
Site Characterization Project
TRW Environmental Safety Systems, Inc.
Bank of America Center, Suite P-110
101 Convention Center Drive
Las Vegas, NV 89109

**ISSUANCE OF CORRECTIVE ACTION REQUEST (CAR) YM-96-C-007 RESULTING
FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION'S (YMQAD)
SURVEILLANCE YMP-SR-96-019**

Enclosed is CAR YM-96-C-007 generated as a result of YMQAD Surveillance YMP-SR-96-019.

Please identify the corrective action to be taken and implemented to correct the deficiency. Send the original of your response to Deborah Sult, YMQAD/QATSS, P.O. Box 98608, Mail Stop 455, Las Vegas, Nevada 89193-8608. Response to the CAR is due 20 working days from the date of this letter. Any extension to the due date must be requested in writing, with appropriate justification, prior to the due date.

If you have any questions, please contact either Robert B. Constable at (702) 794-5580 or Kristi A. Hodges at (702) 794-1464.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2257

Enclosure:
CAR YM-96-C-007

cc w/encl:

T. A. Wood, DOE/HQ (RW-14) FORS
J. G. Spraul, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
R. L. Strickler, M&O, Vienna, VA
B. R. Justice, M&O, Las Vegas, NV
R. P. Ruth, M&O, Las Vegas, NV
D. G. Horton, OQA, NV
W. E. Barnes, YMSCO, NV
Records Processing Center

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV
K. A. Hodges, YMQAD/QATSS, Las Vegas, NV
D. G. Sult, YMQAD/QATSS, Las Vegas, NV

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PDR WASTE

WM-11

YMP-5

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NRC Recipient: J.G. SPRaul

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WM-11

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WASHINGTON, D.C.

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CORRECTIVE ACTION REQUEST

1 Controlling Document:

Quality Assurance Requirements and Description (QARD) Document, Revision 5

2 Related Report No.

YMP-SR-96-019

3 Responsible Organization:

Civilian Radioactive Waste Management System
Management and Operating Contractor (CRWMS
M&O)

4 Discussed With:

L. R. Hayes

5 Requirement:

1. QARD, Supplement III, Paragraph III.2.1, "Planning Scientific Investigations," states:

"A. Scientific investigations shall be planned in accordance with Section 2.0, Quality Assurance Program."

QARD, Section 2.0, Paragraph 2.2.5, "Planning Work," states in part, "Planning shall be documented to ensure work is accomplished under suitably controlled conditions. Planning elements shall include, as appropriate:

- A. Definition of the work scope, objectives, and a listing of the primary tasks involved.
- B. Identification of scientific approach or technical methods used to collect, analyze, or study results of applicable work.
- C. Identification of applicable standards and criteria.

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6 Description of Condition:

1. The cited requirements relative to drill and blast monitoring were identified in memoranda and/or non-QA planning documents other than Job Package (JP) 92-20D, "Construction Monitoring in the Ramps, MTL Drifts, and Alcoves," dated July 1994, and Test Planning Package (TPP) T-93-2, "Construction Monitoring in the Exploratory Studies Facility," Revision 4.

The JP and TPP were not revised to show the planning indicated in the Los Alamos National Laboratory (LANL) memorandum LA-EES-13-LV-02-96-005, dated February 21, 1996, (Elkins to Distribution), Subject: "Strategy for Controlled Blasting and Blast Monitoring in the Thermal Test Alcove."

(Continued on pages 3 & 4)

7 Initiator

Kristi A. Hodges

Date 7/26/96

9 Does a Stop Work condition exist?

Yes _____ No X ; If Yes, Attach copy of SWO

If Yes, Check One: A ☐ B ☐ C ☐ D ☐

10 Recommended Actions:

- Describe remedial actions required to correct the specific condition(s) noted.
- Describe investigative actions performed to determine the extent of the condition and the results of the determination.
- Perform a root cause determination in accordance with Administrative Procedure (AP)-16.4Q, "Root Cause Determination."
- Based on the root cause, document action to prevent recurrence, verifying that all actions required in the response have been addressed in accordance with Attachment 9.6 of AP-16.2Q, "Corrective Action and Stop Work."
- Coordinate your response with the YMQAD QA Reviewer (Block 11) prior to its submittal for acceptance.

11 QA Review:

KAH

Date 7/26/96

12 Response Due Date:

20 Working Days From Issuance

13 Affected Organization QA Manager Issuance Approval:

Richard E. Spence

Printed Name

Signature

Date

7/26/96

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CORRECTIVE ACTION REQUEST

14 Remedial Actions:

15 Investigative Actions:

16 Root Cause Determination:

17 Action to Preclude Recurrence:

18 Response By:

Date

19 Corrective Action Completion Due Date

20 Response Accepted

QAR

Date

21 Response Accepted

AOQAM

Date

22 Amended Response Accepted

QAR

Date

23 Amended Response Accepted

AOQAM

Date

24 Corrective Actions Verified

QAR

Date

25 Closure Approved by:

AOQAM

Date

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5 Requirement: (Continued)

- D. Identification and selective application, or development, of appropriate implementing documents.
- E. Identification of field and laboratory testing equipment, or other equipment.
- G. Identification of QA program verifications of the work performed.
- H. Identification of prerequisites, special controls, environmental conditions, processes, or skills."

2. Administrative Procedure (AP)-16.2Q, "Corrective Action and Stop Work," Rev. 1, Paragraph 6.1, "Significant Deficiencies," states in part, "A condition is a significant deficiency if it meets one or more of the following criteria:
c) an adverse quality trend exists as identified in AP-16.3Q."

AP-16.3Q, "Trend Evaluation and Reporting," Rev. 0, Attachment 9.5, "Trend Evaluation Guidelines," states in part, "1. Review and evaluate the deficiency data file for indications of quality trends in three primary areas: . . b) Quality program-related trends. . . 2. . . . The following conditions serve as a guide: d) Deficiencies are of a programmatic nature, apparently not limited to a specific Affected Organization. e) Previously identified corrective actions apparently are ineffective in reducing the number or severity of deficiencies. f) Recurring deficiencies appear to be related to a possible single root cause."

6 Description of Condition: (Continued)

1. (Cont'd)

Revision of the planning documents was required by Yucca Mountain Site Characterization Project Administrative Procedure (YAP) 5.5, "Test Planning Package Development and Implementation," and YAP 5.6, "Field Work Activation," or presently required by YAP 5.7, "ESF Testing Field Work Packages," Revision 0. An example of criteria that should have been included in a JP/TPP revision is that of investigation and interface controls between Sandia National Laboratories (SNL) and Construction in providing test results after each blast to allow for reconfiguration of blast plans, when warranted.

Based upon review of this memorandum, it was found that the Project is working to direction provided in memoranda from the Test Coordination Office rather than approved quality program implementing documents. It is recognized that a Field Work Package (FWP) was distributed for review on June 17, 1996. This FWP does include some of the general information that should have been incorporated in JP/TPP revisions; however, its distribution was after the completion of blast monitoring for the Thermal Test Alcove.

In addition, on June 24, 1996, LANL memorandum LA-EES-13-LV-06-96-022, (N. Elkins and T. Ricketts to C. Statton), Subject: "Blast Monitoring for Northern Ghost Dance Fault Alcove," was issued summarizing a strategy for blast monitoring in the Northern Ghost Dance Fault Alcove. This memorandum states, "a formal plan is being put together for blast monitoring in the NGDFA by SNL and TCO, with input and acceptance from the A/E." Since there is no formal process for planning field testing activities other than the YAP 5.7 FWP process, it is apparent that the technical direction will be documented in an informal plan that is outside of the QA program and the recently established YAP 5.7 work planning process.

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<input checked="" type="checkbox"/> Corrective Action Request <input type="checkbox"/> Stop Work Order
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CAR/SWO CONTINUATION PAGE

6 Description of Condition: (Continued)

2. Based upon a review of the Deficiency Document Trend Database, similar instances of using memoranda and/or informal plans to plan/control work activities, or to establish interfaces between Affected Organizations were documented in the three CARs indicated below. Although organizations and procedures have recently changed, the deficient condition is the same; therefore, a recurring deficiency exists, which constitutes an adverse quality trend. Based upon this, it is evident that former corrective actions were not effective in eliminating the use of informal plans, letters, and memoranda to control quality-affecting work activities.

- A. On 12/9/94, CAR YM-95-013 was generated to document that organizational interfaces and responsibilities for QA activities; e.g., construction monitoring, were being established in non-QA LANL Work Plans (WP). It was determined that these plans contained quality-affecting technical detail that belonged in the appropriate JP/TPP.
- B. On 1/30/95, CAR YM-95-025 was generated upon closure of the above cited CAR. It was determined that the issue would be better addressed at a Project level. The corrective action eliminated use of the non-QA plans and emphasized the adequacy of Project-level (JP/TPP) procedures to control the planning of field work. The CAR was verified and closed with the following discussion statement:

"There is a remaining concern that technical information contained in discarded WPs, although once deemed valuable, will no longer be available to those supporting field activities. It is imperative that technical direction be controlled through the appropriate DOE procedures and not through internal documents; i.e., letters or memoranda, that do not receive appropriate technical and quality reviews. . . ."

- C. On 4/28/95, CAR YM-95-026, Revision 1, was generated to document that memoranda were being used as the vehicle to communicate test related data needs and requirements between the CRWMS M&O, LANL, and SNL, rather than establishing implementing documents to control those interfaces. The corrective action eliminated the use of memoranda and established a process for documenting data requests and/or clarifications between the design organization and Principle Investigators.