



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

QA: L

AUG 24 1994

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

EVALUATION OF RESPONSE TO CORRECTIVE ACTION REQUEST (CAR)
YM-94-067 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE
DIVISION (YMQAD) AUDIT YMP-94-01 OF THE CIVILIAN RADIOACTIVE
WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING CONTRACTOR
(CRWMS M&O) (SCPB: N/A)

The YMQAD staff has evaluated the response to CAR YM-94-067. The response has been determined to be unsatisfactory because it does not adequately address the extent of deficiency of corrective action to preclude recurrence. Please submit an amended response that addresses the following issues:

1. The initial response states that the architect/engineer cannot determine where the "transition zone" occurs and, therefore, conservatively assumes that all ground support in the alcoves is considered Q. The response also states that the Determination of Importance Evaluation (DIE) will be revised to agree with the "TS North Ramp Alcove Ground Support Analyses." The DIE organization has already submitted a recommended change to the Q-List based on the DIE for Package 2C, Revision 0. Under Extent of Deficiency, the amended response should identify that another recommended change to the Q-List is necessary to clarify that all ground support is quality assurance Class 5.
2. Under Action to Preclude Recurrence, describe what actions will be taken to ensure that structures, systems, and components important to safety and waste isolation are appropriately and consistently classified within the CRWMS M&O.

Additionally, YMQAD staff understands that several design drawings related to the line and grade of the North Ramp are being reclassified as quality affecting. The CRWMS M&O has not identified in any responses to CARs generated from Audit

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YMP-94-01 the nature in extent of these reclassifications. Please describe, in writing, the nature and extent of the reclassification of any design documents related to Design Package 2C and state whether these reclassifications are related to any deficiencies identified during YMQAD Audit HQ-94-01.

An amended response is required to be submitted to this office within ten working days of the date of this letter. Send the original of your response to Deborah Sult, YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas, Nevada 89109. If an extension to the due date is necessary, it must be requested in writing, with appropriate justification, prior to that date.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Robert L. Howard at 794-7820.



Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-4798

Enclosure:
CAR YM-94-067

cc w/encl:

T. A. Wood, HQ (RW-14) FORS
~~R. L. Johnson~~, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
R. L. Robertson, M&O/TRW, Vienna, VA
Richard Jiu, M&O/TRW, Las Vegas, NV
R. P. Ruth, M&O/Duke, Las Vegas, NV
D. G. Horton, OQA (RW-3) NV
R. M. Nelson, Jr., YMSCO, NV

cc w/o encl:

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

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

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CORRECTIVE ACTION REQUEST

1 Controlling Document OCRWM QARD, DOE/RW-0333P, Revision 01		2 Related Report No. YMP-94-01	
3 Responsible Organization M&O		4 Discussed With R. Saunders/P. Hastings	
5 Requirement: The QARD, Sections 2.2.3.A.1 and 2.2.3.A.5, requires the QA Program to apply to the following items which shall be included on the Q-list maintained by OCRWM: 1. Items important to radiological safety as described in 10CFR60, 71, and 72. (Continued on next page)			
6 Adverse Condition: Determination of Importance Evaluation for Package 2C DI#BAB000000-01717-2200-00005 identifies permanent function transition zone ground support between alcoves and TS North Ramp as QA-1 and QA-5 (Important to Radiological Safety and Important to Potential Interaction). "TS North Ramp Alcove Ground Support Analysis," DI#BAEAB000-01717-0200-00006, approved 7/7/94, identifies all alcove ground support as QA-1 and QA-5. Refuge Chamber Specification, Section 13046, DI#BAEACA000-01717-6300-13046, dated 7/7/94, is not identified as a Q-specification, but contains requirements for alcove ground support.			
9 Does a Significant Condition Adverse to Quality exist? Yes <u>X</u> No <u> </u> If Yes, Check One: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input checked="" type="checkbox"/> D <input type="checkbox"/> E		10 Does a stop work condition exist? Yes <u> </u> No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C	
3 Response Due Date: 20 Working Days From Issuance			
11 Required Actions: <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input checked="" type="checkbox"/> Root Cause Determination			
12 Recommended Actions: 			
7 Initiator Robert L. Howard <i>Robert L. Howard</i> 8/3/94		14 Issuance Approved by: QADD <i>R. L. Howard</i> Date <u>8/5/94</u>	
15 Response Accepted QAR _____ Date _____		16 Response Accepted QADD _____ Date _____	
17 Amended Response Accepted QAR _____ Date _____		18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR _____ Date _____		20 Closure Approved by: QADD _____ Date _____	

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

5 Requirements (continued)

2. Items not intended to perform a safety function but whose failure could impair the capability of other items to perform their intended safety or waste isolation function.

Remedial Action

Refuge chamber specification #/BABECA000-01717-6300-13046 will be revised to delete the reference to "ground support".

The scope of the revised refuge chamber specification will specifically include requirements for floor, fire resistant door and wall, ventilation, utilities and furnishings. All ground support (permanent) requirements are contained within specification #'s 02165, 03362, and 03363.

Responsible Individual: Bob Saunders
Date of Completion: 10-01-94

The DIE for Design Package 2C will be revised to agree with the "TS North Ramp Alcove Ground Support Analysis" BABEAB000-01717-0200-0006 that all alcove ground support (permanent) is Q.

Responsible Individual: Peter Hastings
Date of Completion: 9/30/94

A review will be performed to ensure that the Starter Tunnel Test Alcove ground support (permanent) is appropriately classified. Appropriate actions will be implemented upon results of the investigation.

Responsible Individual: Bob Saunders
Date of Completion: 10-30-94

Investigation Action

As a result of a QAP-3-2 design verification comment, the resolution to that comment was to revise Design Package 2C ground support drawings and specifications to address the DIE requirement to identify the "transition zone" between sections of tunnel and/or test alcove where the ground support is considered to change from "Q" to non "Q".

In response to the comment, the A/E concluded that such a determination could only be made on the basis of analyses which require site specific geotechnical data and information and the use of instrumentation to verify the analyses. At this time the A/E is unable to complete such an analysis and therefore has taken the conservative position that all ground support (permanent) to be installed in the Design Package 2C alcoves and refuge chambers will be considered "Q".

8/17/94 LV. ESSB G.N. 8/94-734


Root Cause

While implementing the resolution of the design verification comment, an oversight of not deleting the reference to ground support within Specification 13046 occurred. Investigative conversations with the designers involved has determined that human error was the root cause for the oversight and that the deficiency cited is an isolated case.

Corrective Action

None required since this is an isolated case. As stated above, all ground support requirements are contained within certain specifications. Referring to ground support within the Refuge Chamber Specification was an isolated error.

Responsible Individual: Alden Segrest
Date of Completion: 11-01-94

 8/17/94