



Department of Energy
Yucca Mountain Site Characterization
Project Office
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Las Vegas, NV 89193-8608

WBS 1.2.11
 QA: N/A

SEP 16 1993

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

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST
 (CAR) YM-93-064 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION
 (YMQAD) AUDIT YMP-93-12 OF REYNOLDS ELECTRICAL & ENGINEERING COMPANY, INC.
 (SCP: N/A)

The YMQAD staff has verified the corrective action to CAR YM-93-064 and
 determined the results to be satisfactory. As a result, the CAR is
 considered closed.

If you have any questions, please contact either Robert B. Constable at
 794-7945 or Gerard Heaney at 794-7826.

Richard E. Spence, Director
 Yucca Mountain Quality Assurance Division

YMQAD:RBC-6066

Enclosure:
 CAR YM-93-064

cc w/encl:
 Trudy Wood, HQ (RW-52) FORS
 K. R. Hooks, NRC, Washington, DC
 S. W. Zimmerman, NWPO, Carson City, NV
 R. A. Morgan, M&O/Duke, Vienna, VA
 R. L. Robertson, M&O/TRW, Vienna, VA
 J. A. Jackson, M&O/TRW, Las Vegas, NV
 Richard Jiu, M&O/TRW, Las Vegas, NV

cc w/o encl:
 J. W. Gilray, NRC, Las Vegas, NV
 N. J. Brogan, YMQAD/QATSS, Las Vegas, NV

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11/03/93

9309230085 930916
 PDR WASTE PDR
 WM-11

ADD: Ken Hooks

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

8 CAR NO.: YM-93-064
DATE: 07/02/93
SHEET: 1 OF 1
QA

CORRECTIVE ACTION REQUEST

1 Controlling Document QARD DOE/RW-0333P, Revision 0		2 Related Report No. YMP-93-12	
3 Responsible Organization CRWMS M&O-Nevada		4 Discussed With A. Watkins	
5 Requirement: QARD DOE/RW-0333P, Section 15.0, "Nonconformances" Revision 0, Paragraph 15.2.1.A, states, "Nonconformance documentation shall clearly identify and describe the characteristics that do not conform to specified criteria."			
6 Adverse Condition: Contrary to the above, Specification YMP-025-1-SP09, Revision 1, Section 03361, Paragraph 3.10.B.3.D, "Shotcrete" does not require an NCR to be generated when shotcrete test results do not meet specification compressive strength requirements. The specification currently states, "When shotcrete does not meet the specified requirements and was taken from a test panel, additional samples shall be taken from the area of work in place represented by the test panel and tested for conformance to the specifications. Shotcrete not meeting the specified requirements shall be removed and replaced with new shotcrete."			
9 Does a significant condition adverse to quality exist? Yes <u>X</u> No <u> </u> If Yes, Circle One: A B <u>(C)</u>		10 Does a stop work condition exist? Yes <u> </u> No <u>X</u> : If Yes - Attach copy of SWO If Yes, Circle One: A B C D	
11 Response Due Date: 20 Working Days from Issuance			
12 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			
13 Recommended Actions: 1) Revise specification requirements to meet QARD DOE/RW-0333P requirements. 2) Disposition failing test results on a case-by-case basis.			
7 Initiator Gerard Heaney <i>Gerard Heaney</i> Date <u>7-1-93</u>		14 Issuance Approved by: QADD <i>[Signature]</i> Date <u>07.07.93</u>	
15 Response Accepted QAR <i>Gerard Heaney</i> Date <u>8-10-93</u>		16 Response Accepted QADD <i>[Signature]</i> Date <u>8/15/93</u>	
17 Amended Response Accepted QAR _____ Date _____		18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR <i>Gerard Heaney</i> Date <u>9-9-93</u>		20 Closure Approved by: QADD <i>[Signature]</i> Date <u>11/15/93</u>	

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

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CORRECTIVE ACTION REQUEST (Continuation Page)

1. Corrective Action Response for CAR #YMP 93-064

- A) Remedial Action - Will generate FCR to revise specification to be in compliance with QARD to read:

"When shotcrete does not meet the specified requirements and was taken from a test panel, additional samples shall be taken from the area of work in place represented by the test panel and tested for conformance to the specifications."

- B) Investigative Action - From a general review of specifications this would appear to be an isolated instance.
- C) Root Cause Determination - It would appear that upon initial review of specifications and comment resolution this escaped observation.
- D) Corrective Action to Preclude Recurrence - With knowledge gained from this CAR by the engineers, such inclusion in the future to the specifications should not occur.

2. The person responsible for this action will be Arthur Watkins (295-4068). The anticipated completion date will be September 17, 1993.

3. Response Approved:  Date: 8-4-93
Responsible Manager

Str del 8/4/93 - LV. QA. BRJ. 08193-192

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CORRECTIVE ACTION REQUEST (Continuation Page)

The following corrective actions were verified to be completed:

1. Specification YMP-025-1-SP09, Section 03361, "Shotcrete," Revision 3, Paragraph 3.10.B.3.D, has been revised to read, "When shotcrete does not meet the specified requirements and was taken from a test panel, additional samples shall be taken from the area of work in place represented by the test panel and tested for conformance to the specifications."

Gerard Heaney Date 9-9-93
Gerard Heaney