



**Department of Energy**  
 Yucca Mountain Site Characterization  
 Project Office  
 P. O. Box 98608  
 Las Vegas, NV 89193-8608

WBS 1.2.11  
 QA: N/A

OCT 28 1993

Robert F. Fritchett  
 Technical Project Officer  
 for Yucca Mountain  
 Site Characterization Project  
 Reynolds Electrical &  
 Engineering Co., Inc.  
 P.O. Box 98521  
 Las Vegas, NV 89193-8521

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST  
 (CAR) YM-93-060 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION  
 (YMQAD) AUDIT YMP-93-12 OF REYNOLDS ELECTRICAL & ENGINEERING CO., INC.  
 (SCP: N/A)

The YMQAD staff has verified the corrective action to CAR YM-93-060 and  
 determined the results to be satisfactory. As a result, the CAR is considered  
 closed.

If you have any questions, please contact either Robert E. Constable at  
 794-7945 or Raul A. Hinojosa at 794-7991.

Richard E. Spence, Director  
 Yucca Mountain Quality Assurance Division

YMQAD:RBC-445

Enclosure:  
 CAR YM-93-060

cc w/encl:  
 K. R. Hooks, NRC, Washington, DC  
 S. W. Zimmerman, NWPO, Carson City, NV  
 W. J. Glasser, REECO, Las Vegas, NV

cc w/o encl:  
 J. W. Gilray, NRC, Las Vegas, NV  
 N. J. Brogan, YMQAD/QATSS, Las Vegas, NV  
 CCRU (2)

YMP-6

9311040365 931028  
 PDR WASTE  
 WM-11 PDR

ADD: K. HOOKS  
 Ltr. Encl.  
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102.7  
 WM-11  
 N/A03

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

8 CAR NO.: YM-93-060  
DATE: 07/02/93  
SHEET: 1 OF 1  
QA

CORRECTIVE ACTION REQUEST

|   |  |   |  |
|---|--|---|--|
| 1 Controlling Document<br>REECO QAPP, 568-DCO-115, Revision 8   |  | 2 Related Report No.<br>YMP-93-12   |  |
| 3 Responsible Organization<br>REECO Construction  |  | 4 Discussed With<br>T. Leonard/J. Hedlund   |  |
| 5 Requirement:<br>REECO QAPP, Section XVII, "Quality Assurance Records," Paragraph 2.1.1 states in part, "Documents that are designated to become records shall be legible, identifiable, accurate, complete...."   |  |   |  |
| 6 Adverse Condition:<br>Contrary to the above, review of Shotcrete Placement Logs indicated the following for several records:<br><br>a. Sample identification numbers are not accurate.<br>b. The transfer of batch numbers is not accurate.<br>c. Drawing numbers are not always listed.<br>d. Corrections are not being lined out and initialed and dated. |  |   |  |
| 9 Does a significant condition adverse to quality exist? Yes ___ No <u>X</u><br>If Yes, Circle One: A B C   |  | 10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO<br>If Yes, Circle One: A B C D |  |
| 11 Response Due Date:<br>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:<br>1) Provide reinstruction to record management and procedural requirements.   |  |   |  |
| 7 Initiator<br>Gerard Heaney<br><i>Gerard Heaney</i> Date <u>7-1-93</u>   |  | 14 Issuance approved by:<br>QADD <i>[Signature]</i> Date <u>07-07-93</u>  |  |
| 15 Response Accepted<br>QAR <i>Gerard Heaney</i> Date <u>8-10-93</u>  |  | 16 Response Accepted<br>QADD <i>[Signature]</i> Date <u>8/17/93</u>   |  |
| 17 Amended Response Accepted<br>QAR _____ Date _____  |  | 18 Amended Response Accepted<br>QADD _____ Date _____   |  |
| 19 Corrective Actions Verified<br>QAR <i>Karl A. Amos</i> Date <u>10/27/93</u>  |  | 20 Closure Approved by:<br>QADD <i>[Signature]</i> Date <u>10/27/93</u>   |  |

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

CAR NO. YM-93-060  
DATE: 08/04/93  
PAGE: \_\_\_\_\_ OF \_\_\_\_\_  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

CORRECTIVE ACTION RESPONSE for CAR # YM-93-060

A. Remedial Action:

Shotcrete Placement Logs completed prior to July 28, 1993, will be checked for completeness and corrected as necessary.

Responsible Individual: Jon P. Hedlund  
Estimated completion date: September 3, 1993

B. Investigative Action:

Extent of Deficiency: All shotcrete Placement Logs completed prior to July 28, 1993.

Responsible Individual: Jon P. Hedlund  
Estimated completion date: Completed

C. Root Cause Determination:

Lack of technical coverage on the back shifts (swing and graveyard).

D. Corrective Action to Preclude Recurrence:

The Shotcrete Placement Log has been simplified in TC-581-SP-0007, Revision 1, effective on July 28, 1993. A technical person has been assigned on each shift to ensure that the logs are properly completed.

Responsible Individual: T. M. Leonard  
Estimated completion date: Completed

Response Approved: RF Pritchett Date: 8/4/93

*Stu dtl 8/4/93-580-01-587*

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

CAR NO. YM-93-060  
DATE: 10-15-93  
PAGE: \_\_\_\_\_ OF \_\_\_\_\_  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

**VERIFICATION OF CORRECTIVE ACTION REQUEST  
(CAR) YM-93-060**

Verification of corrective action was completed on October 15, 1993 by Raul A. Hinojosa. The following objective evidence was verified.

- A. **REMEDIAL ACTION** - Verified that all Shotcrete Placement Logs completed prior to July 28, 1993, had been checked and corrected.
- B. **INVESTIGATIVE ACTION** - See Item A.
- C. **ROOT CAUSE DETERMINATION** - See Item D.
- D. **CORRECTIVE ACTION TO PRECLUDE RECURRENCE** - Verified that technical personnel (engineers) had been assigned to the swing and graveyard shifts by review of time sheets for the period since the CAR Response. Engineers assigned were Brian J. Memmott, Robert Kehrnan and Clint Mortensen.

  
Signature

Date 10/20/93