



**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

AUG 18 1993

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

EVALUATION OF RESPONSE AND CLOSURE OF CORRECTIVE ACTION REQUEST (CAR)  
 YM-93-056 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 evaluated the response to CAR YM-93-056. The response has been determined to be satisfactory. Verification of the corrective action has been performed and is acceptable. As a result, the CAR is closed.

If you have any questions, please contact either Robert B. Constable at (702) 794-7945 or Fred. T. Lofftus at 794-7190.

Richard E. Spence, Director  
 Yucca Mountain Quality Assurance

YMQAD:RBC-5531  
 Division

Enclosure:  
 CAR YM-93-056

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

9309090338 930818  
 PDR WASTE  
 WM-11

PDR



*Att. Encl.*

*ADD: Ken Hooks*

*1 1*

*102.7*

*WM-11*

*NH03*

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

8 CAR NO.: YM-93-056  
DATE: 07/02/93  
SHEET: 1 OF 1  
QA

**CORRECTIVE ACTION REQUEST**

1 Controlling Document TC-581-TP-0002, Revision 0		2 Related Report No. YMP-93-12	
3 Responsible Organization REECO		4 Discussed With Jon Hedlund	
5 Requirement: TC-581-TP-0002, Revision 0, Paragraph 6.5.3, states in part, "If a bolt passes the pull test, paint the bolt plate green. If a bolt fails the pull test, paint the bolt plate red."  MC-09.1, Revision 2, Paragraph 6.3 states in part, "Each required verifiable characteristic shall become an attribute to be inspected."			
6 Adverse Condition: CONSTRUCTION: 1) The bolt plates inside the starter tunnel are not being painted to indicate test status.  INSPECTION: 2) QC did not verify procedural requirements regarding rock bolts and their test status indicators.			
9 Does a significant condition adverse to quality exist? Yes ___ No <u>X</u> 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 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 type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input checked="" type="checkbox"/> Root Cause Determination			
13 Recommended Actions: Implement procedural requirements.			
7 Initiator Fred B. Lofftus <i>Fred Lofftus</i> Date <u>6/30/93</u>		14 Issuance Approved by: QADD <i>[Signature]</i> Date <u>07-07-93</u>	
15 Response Accepted QAR <i>[Signature]</i> Date <u>8/6/93</u>		16 Response Accepted QADD <i>[Signature]</i> Date <u>8/18/93</u>	
17 Amended Response Accepted QAR _____ Date _____		18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR <i>[Signature]</i> Date <u>8/12/93</u>		20 Closure Approved by: QADD <i>[Signature]</i> Date <u>8/15/93</u>	

**ENCLOSURE**

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

CAR NO. YM-93-056  
DATE: 08/04/93  
PAGE: \_\_\_\_\_ OF \_\_\_\_\_  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

**CORRECTIVE ACTION RESPONSE for CAR # YM-93-056**

**1. CONSTRUCTION:**

**A. Remedial Action:**

No action required. Painting the bolts to indicate test status is not a specification requirement. The Rockbolt Installation and Testing Log identifies all bolts that have been tested and is appropriate documentation to meet specification requirements.

**C. Root Cause Determination:**

This process was originally started in the boxcut to provide immediate visual verification that a bolt had been tested. The requirement was also added to the underground bolting procedure. However, since the bolt plates were to be covered by the shotcreting process, it was determined to be an inadequate means of identifying bolts that had been tested.

**D. Corrective Action to Preclude Recurrence:**

The procedure requirement to paint bolts to indicate test status has been removed in Revision 1 of TC-581-TP-0002.

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

**2. INSPECTION: (Remedial Action, Root Cause Determination,  
Corrective Action to Preclude Recurrence)**

No action required. The REECO YMP Quality Control (QC) Section is responsible for verification of attributes included on approved inspection checklists. These checklists are developed to meet drawing and specification requirements. The painting of rock bolts is not a drawing or specification requirement and therefore was not required to be included as an attribute to be inspected by REECO YMP QC.

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

*Ltr dtd 8/4/93 - 580-01-587*

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

CAR NO. YM-93 056  
DATE: 8/12/93  
PAGE: \_\_\_\_\_ OF \_\_\_\_\_  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

Corrective Action Verification

A. Remedial Action

No action required, installation & test status of each rock bolt was verified to be adequately described in the rock bolt installation & testing logs.

C. Root Cause Determination

The painting of installed rock bolts was verified to not be a specification requirement as a method of indicating test status. It was a procedural requirement which was deleted & verified in the revision-1 issue of TC-581-TP-0002, Rev-1

D. Corrective to preclude Recurrence

Corrective action verified: The requirement to paint the rock bolts to indicate status was removed from the Revision-1 of TC-581-TP-0002

*J. A. Poffler*  
8/12/93