



Department of Energy
Washington, DC 20585

QA: L

FEB 11 1997

L. D. Foust, Technical Project Officer
for Yucca Mountain Site
Characterization Project
TRW Environmental Safety Systems, Inc.
1180 Town Center Drive, M/S 423
Las Vegas, NV 89134

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST (CAR) YM-95-C-050 RESULTING FROM YUCCA MOUNTAIN SITE CHARACTERIZATION OFFICE'S REVIEW OF THE CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING CONTRACTOR'S ACTIVITIES

The Office of Quality Assurance staff has verified the corrective action to CAR YM-95-C-050 and determined the results to be satisfactory. As a result, the CAR is considered closed. ^{5 AWC 2/11/97}

If you have any questions, please contact either James Blaylock at (702) 794-1420 or Patrick V. Auer at (702) 794-1432.

R.W. Clark

For Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-0930

Enclosure:
CAR YM-95-C-050

cc w/encl:
L. A. Barrett, DOE/HQ (RW-2) FORS
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8 CAR NO: YMQAD-95-C-050
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U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

CORRECTIVE ACTION REQUEST

1 Controlling Document: DOE/RW-0333P, Rev. 1 (QARD)	2 Related Report No.: DR YMQAD-95-D-001
3 Responsible Organization: LVM&O	4 Discussed With: Susan Jones, Barry Thom, Richard Quitmeyer, Anne Ritcey

5 Requirement:
Section 5.2 of the QARD states the following:
"Work shall be performed according to controlled implementing documents."

6 Description of Condition:
Requirements of study plan procedure YAP-2.2Q were knowingly ignored by persons trained to the procedure and working with study plans. Study Plan 8.3.1.17.3.6, "Probabilistic Analysis of Vibratory Ground Motion and Fault Displacement at Yuca Mountain" was processed for approval by M&O personnel knowing that changes to the appropriate YMP Requirements Document had not been made first as required by YAP-2.2Q. Documentation of this action by M&O personnel is contained in correspondence related to Study Plan review and approval. This CAR is being issued to address the condition adverse to quality in the area of violating procedures. The condition adverse to quality specific to Study Plan 8.3.1.17.3.6 is addressed in OCRWM Deficiency Report YMQAD-95-D-001.

7 Initiator: <i>William Boyle</i> William Boyle Date 07/26/95	10. Does a stop work condition exist? Yes ___ No <input checked="" type="checkbox"/> ; If Yes, Attach copy of SWO If Yes, Check One: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D
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12. Recommended Actions:

1. Investigate extent of condition identified in Block 6 (i.e., number of personnel knowingly not working to YAP-2.2Q).
2. Determine impact of requirements of YAP-2.2Q not being followed.
3. Take appropriate remedial action based on investigative action and determination of impact.
4. Determine root cause of personnel not complying with YAP-2.2Q requirements.
5. Take action to preclude recurrence of the condition based on determination of root cause.

11 QA Review: <i>C.C. Wan</i> C.C. Wan Date 7-26-95	12 Response Due Date: 20 working days from issuance
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13 Affected Organization QA Manager Issuance Approval:

Printed Name **R.E. SPENCE.** Signature *R. E. Spence* Date **7.28.95**

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14 Remedial Actions:

The recommended actions (Box 12) will be followed to reach closure on this issue. A Document Action Request (DAR) was submitted by USGS on 5/3/95 to change the Site Design and Test Requirements Document (SD&TRD). The last revision of the SD&TRD was issued on 5/2/95; the next revision (Rev.2) incorporates the DAR, but has not yet been issued.

The new M&O Study Plan Coordinator has been trained to the YAP-2.2Q Procedure and has been made aware of his responsibilities with regard to this issue.

The actions necessary to close this CAR will be carried out by 11/30/95.

15 Investigative Actions:

The extent of condition will be investigated (i.e., number of personnel knowingly not working to YAP-2.2Q; other instances of this type of occurrence with formerly-approved Study Plans; impact of the Procedure YAP-2.2Q not being followed). At this time, it appears that only one person, the former M&O Study Plan Coordinator, was involved. This person has been replaced for reasons unrelated to this CAR, and is no longer working on the Yucca Mt. Project.

16 Root Cause Determination:

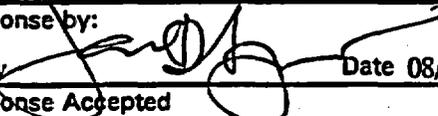
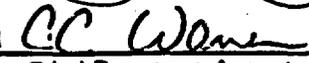
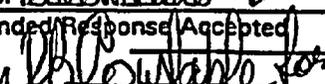
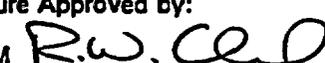
The root cause of the procedure not being followed will be determined, if possible. At this time, it appears that the former SP Coordinator either didn't understand her duties or purposely didn't follow them. Due to the departure of the former Study Plan Coordinator, it may be difficult to determine the root cause of the problem.

It also appears that the procedure YAP-2.2Q is ambiguous with respect to who has responsibility for determining the need for a DAR. This procedure may need to be revised to clarify the responsibilities of the TPOs and the Study Plan Coordinator.

17 Action to Preclude Recurrence:

If it is determined that the YAP-2.2Q Procedure needs revision, it will be revised and all involved personnel will be trained to the new revision. The new M&O SP Coordinator is already aware of his responsibilities in assuring that a SP with a DAR does not get approved before the SD&TRD is revised.

The actions necessary to close this CAR will be carried out by 11/30/95.

18 Response by: J. Ag:ew  Date 08/28/95	19 Corrective Action Due Date: 11/30/95
20 Response Accepted OAR  Date 8-29-95	21 Response Accepted AOQAM  Date 8-30-95
22 Amended Response Accepted OAR  Date 4-22-96	23 Amended Response Accepted AOQAM  Date 5-2-96
24 Corrective Actions Verified OAR  Date 1-31-97	25 Closure Approved by: AOQAM  Date 2/10/97

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Amended Response #2:

This CAR was issued because Study Plan 8.3.1.17.3.6 was approved prior to having the upper-level document, the Site Design and Test Requirements Document (SD&TRD) revised to reflect changes in test objectives for the Study Plan, as required in Procedure YAP-2.2Q.

Investigative actions have been completed regarding the above CAR. The number of people knowingly not working to the correct procedure was limited to the M&O Study Plan Review Coordinator (SPRC), who is no longer working on the Project. No other Study Plans were approved before having their test objectives (as listed in the SD&TRD) revised to reflect changes, despite the fact that several suspect SP's were listed in DR YMQAD-95-D-001 as having been approved prior to revising the SD&TRD. These suspect SP approval dates were reexamined, and determined not to violate Procedure YAP-2.2Q.

The impact of the Procedure YAP-2.2Q not being followed for the approval of SP 8.3.1.17.3.6 is minimal, because the changed test objectives of SP 8.3.1.17.3.6 have been included in Rev. 2 of the SD&TRD, which has already been issued.

With regard to Root Cause Analysis, the previous Amended Response was in error. We previously reported that we suspected the root cause was that pressure was applied by upper-level DOE management to approve this SP. However, we subsequently learned that the former Study Plan Review Coordinator forgot to determine whether the test objectives in SP 8.3.1.17.3.6 required revision of the SD&TRD prior to approval. The current SPRC has been trained to YAP-2.2Q, and will ensure that this error will not be repeated.

Since our last amended response, DAR #1780 has been issued by YMSCO/AMSP to remove the test objectives from the SD&TRD, i.e., they are not required to be listed in both the SD&TRD and in the individual SPs, since they are goals, not requirements. This will require a revision of YAP-2.2Q, which is being handled under DAR #1808, issued by the current SPRC. References to the SD&TRD are being removed from YAP-2.2Q, so that the upper-level document (SD&TRD) will no longer need to be referred to before a Study Plan can obtain YMSCO approval. We expect that both the SD&TRD and YAP-2.2Q will be revised by May 30, 1996.

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CORRECTIVE ACTION REQUEST

1 Controlling Document: DOE/RW-0333P, Rev. 1 (QARD) 2 Related Report No.: DR YMQAD-95-D-001

3 Responsible Organization: M&O 4 Discussed With: Susan Jones, Barry Thom, Richard Quitmeyer, Anne Ritchey

5 Requirement: Section 5.2 of the QARD states the following: "Work shall be performed according to controlled implementing documents."

6 Description of Condition: The study plan procedure YAP-2.2Q was knowingly ignored by persons trained to the procedure and working with study plans. In violation of YAP-2.2Q the study plan 8.3.1.17.3.6 "Probabilistic Analyses of Vibratory Ground Motion and Fault Displacement at Yucca Mountain" was approved and finalized without the appropriate YMP RD being changed first. Throughout the entire study plan process, no one initiated a DAR to change the test objectives to the YMP RD prior to this study plan being approved. The study plan went through screening, technical, regulatory, and quality assurance reviews and still no DAR was issued.. The condition adverse to quality specific to study plan 8.3.1.17.3.6 is addressed on OCRWM Deficiency Report YMQAD-95-D-001.

7 Initiator: William Boyle Date 07/07/95 10. Does a stop work condition exist? Yes ___ No ; If Yes, Attach copy of SWO If Yes, Check One: A B C D

12. Recommended Actions:
- 1. Investigate extent of condition identified in Block 6 (i.e., number of personnel knowingly not working to YAP-2.2Q).
 - 2. Determine impact of requirements of YAP-2.2Q not being followed.
 - 3. Take appropriate remedial action based on investigative action and determination of impact.
 - 4. Determine root cause of personnel not complying with YAP-2.2Q requirements.
 - 5. Take action to preclude recurrence of the condition based on determination of root cause.

11 QA Review: C.C. L... Date 7-10-95 12 Response Due Date: 20 working days from issuance

13 Affected Organization QA Manager Issuance Approval: Printed Name R.E. SPENCE Signature Robert Spence Date 7-18-95

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14 Remedial Actions:

15 Investigative Actions:

16 Root Cause Determination:

17 Action to Preclude Recurrence:

18 Response by: Date	19 Corrective Action 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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AMENDED RESPONSE:

This CAR was issued because Study Plan 8.3.1.17.3.6 was approved prior to having the upper-level document (the SD&TRD) revised to reflect changes in test objectives for the Study Plan, as required in YAP-2.2Q

Investigative Actions have been completed regarding the above CAR. The number of people knowingly not working to the correct procedure was limited to the individual in charge of Study Plan Coordination, who is no longer working on the Project. No other Study Plans were approved before having the SD&TRD revised to reflect changes in test objectives. The impact of the Procedure YAP-2.2Q not being followed is minimal because the test objectives have been included in the latest revision to the SD&TRD, which has been issued.

With regard to Root Cause Analysis, it appears that this individual was aware of her duties in regard to YAP-2.2Q, but was under pressure from upper-level DOE management to issue the Study Plan revision anyway. Since this individual is no longer on the Project, this possible root cause is not readily verifiable.

The YAP-2.2Q Procedure is clear in its discussion of the responsibilities with regard to issuance of Document Action Requests (DARs), and does not need to be revised to clarify responsibilities. The new Study Plan Coordinator has been trained to the Procedure YAP-2.2Q and is aware of his duties in making sure that upper-tier documents are revised prior to Study Plan approval.

Recent developments have caused the SD&TRD to undergo an additional revision to eliminate test objectives, which are already given in the Study Plans. Since test objectives are goals and not requirements, AMSP has directed that the SD&TRD be revised to eliminate them. This will necessitate having YAP-2.2Q revised to eliminate the requirement that caused this CAR to be written.

1/9/96

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VERIFICATION OF CORRECTIVE ACTIONS FOR CAR YM 95-C-050

Verification of corrective action for CAR YM 95-C-050 was performed on January 31, 1997. YAP 2.2Q, "Preparation, Review, Approval, and Revision of Site Characterization Plan Study Plans," Rev. 1, was approved on January 28, 1997, and released for issue. Training for the study plan coordinators was completed January 30, 1997. These actions complete the actions required by the response for closure of the CAR.

Based on the reviews of the applicable documentation, it is recommended that CAR YM-95-C-050 be closed.

Evaluation by:

Pat Auer
Pat Auer

QAR 1/31/97