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

FEB 06 1995

L. Dale Foust
Technical Project Officer
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TRW Environmental Safety Systems, Inc.
Bank of America Center, Suite P-110
101 Convention Center Drive
Las Vegas, NV 89109

EVALUATION OF AMENDED RESPONSE TO CORRECTIVE ACTION REQUEST (CAR) YM-94-052 RESULTING FROM U.S. DEPARTMENT OF ENERGY/HEADQUARTERS QUALITY ASSURANCE DIVISION'S AUDIT HQ-94-02 OF THE CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING CONTRACTOR (SCPB: N/A)

The Yucca Mountain Quality Assurance Division staff has evaluated the amended response to CAR YM-94-052. The amended response has been determined to be satisfactory. Verification of completion of the corrective action will be performed after the effective date provided. Any extension to this date must be requested in writing, with appropriate justification, prior to the date. Please send a copy of extension requests to Deborah Sult, YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas, Nevada 89109.

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-1948

Enclosure:
CAR YM-94-052

cc w/encl:
T. A. Wood, HQ (RW-14) FORS
J. G. Sprau, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
R. L. Robertson, M&O/TRW, Vienna, VA
Richard Jiu, M&O/Duke, Las Vegas, NV
R. P. Ruth, M&O/Duke, Las Vegas, NV
D. G. Horton, OQA (RW-3) NV
W. E. Barnes, YMSCO, NV

cc w/o encl:
W. L. Belke, NRC, Las Vegas, NV
D. G. Sult, YMQAD/QATSS, Las Vegas, NV

NH03
1027
WM-11

YMP-5

ORIGINAL
THIS IS A RED STAMP

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U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

[8] CAR NO. YM-94-052
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CORRECTIVE ACTION REQUEST

[1] Controlling Document
M&O QAP-3-1, Technical Document Review, Rev. 4 P01

[2] Related Report No.
HQ-94-02

[3] Responsible Organization
CRWMS M&O

[4] Discussed With
M. DeLeone, F. Arth, J. Cassidy, J. Willis

[5] Requirement:

Paragraph 5.4.3 requires that the Lead Document Preparer ensures that all responses to mandatory comments have been accepted and that all concurrence signatures for the updated document have been obtained.

Also the Lead Document Preparer must ensure that all DRRs are completed with mandatory comments (initiated and dated or with resolution memorandum attached) and that Block 9 (concurrence with updated document) has been signed and dated. Finally, the Lead Document Preparer must update the records package for the document to reflect the resolutions and submit to LRC.

[6] Adverse Condition:

The Document Review Record for the Design Verification (Design Review) conducted in relation to Design Package 1B, that was presented to the audit team contains numerous examples of the following:

1. Comment number missing
2. Section/paragraph reference missing
3. Accept/Reject by the reviewer is missing
4. Resolution of the reviewers rejected comment.
5. Indication as to whether or not it is quality affecting, (i.e., yes or no) is missing
6. "Reviewed by" signatures and dates are missing
7. "Response by" signatures and dates are missing

[9] Does a significant condition adverse to quality exist? Yes_X_ No__
If Yes, Circle One: A (B) C D E

[10] Does a stop work condition exist?
Yes__ No_X_ ; If Yes - Attach copy of SWO
If Yes, Circle One: A B C

[13] Response Due Date:
20 working days from issuance

[11] Required Actions: ☒ Remedial ☒ Extent of Deficiency ☒ Preclude Recurrence ☒ Root Cause Determination

[12] Recommended Actions:
1. Review the Documentation Review Record and correct the discrepancies.
2. Determine any potential impact concerning the resolution of comments.
3. Train all responsible personnel in the proper implementation of the procedure.
4. Review all other Design Review packages for the incorporation of all procedural requirements.

[7] Initiator C.C. Wan for
Richard G. Peck Date 6/30/94

[14] Issuance Approved by:
QADD R. L. Spence Date 7/12/94

[15] Response Accepted
QAR Date

[16] Response Accepted
QADD Date

[17] Amended Response Accepted Robert Ribard 11/3/95
QAR Robert Ribard Date 10/17/94

[18] Amended Response Accepted M. Leonard Willis
QADD R. L. Spence Date 10/19/94

[19] Corrective Actions Verified
QAR Date

[20] Closure Approved by:
QADD Date

Exhibit QAP-16.1.1

ENCLOSURE

REV. 02/14/94

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

Amended Response to answer unsatisfactory verification

The Actions described in the original response have been completed, and will be followed up by the following Corrective Actions. These actions are in response to the comments generated during the Verification of Corrective Action performed by Robert L. Howard.

Comment #1: The DRR in question has "NO COMMENT" entered in the comments area by the reviewer. The originator's "Response" and "Response by" blocks, and the reviewer's "Accept/Reject" block will be completed as N/A, since neither response nor acceptance are required.

Comment #2: The entire package will be reviewed and modified to ensure that the "Review Instructions/Acceptance Criteria:" and the "QA Class:" blocks are completely and correctly filled out.

Completion of the actions addressed above will fully address the extent of deficiency of this CAR.

Responsible Individual: Matthew Gomez
Completion Date: 01/31/95

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

Verification of Corrective Action for CAR YM-94-052

YMQAD staff has partially verified corrective action to CAR YM-94-052 and has determined the results to be unsatisfactory. Based on a sample of Design Verification Records for Package 1B, Staff could not verify corrective action on CAR YM-94-052 for the following reasons:

1. Discrepancy 3 in the CAR stated that some DRRs did not have Accept/Reject indication by the reviewer. Discrepancy 6 stated that some DRRs were missing "Reviewed By" signatures. One DRR reviewed still did not have the Accept/Reject status and "Reviewed by" signature documented by the reviewer.

2. Discrepancy 5 in the CAR stated that DRRs did not indicate that whether or not the document is quality affecting. None of the DRRs reviewed had the QA Class identified in the upper right hand corner. Additionally, five DRRs sampled did not have the QA status checked in the appropriate block. (Discrepancy 5)

These deficiencies indicate that all remedial action is not complete, and that the M&O has not fully captured the extent of the deficiency identified in the CAR.

Note that YMQAD did not try to verify all corrective action at this time.

Robert L. Howard, QAR

December 19 1994
Date

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

Amended Response
A. REMEDIAL ACTION:

1. Review the Document Review Records (DRRs) for Design Verification of Design Package 1B, for all discrepancies and make required corrections.

Responsible Individual: Matthew Gomez
Completion Date: 11/30/94

2. Determine any potential impacts to Design Package 1B and to any work done to 1B, based on the resolution of comments and make required corrections.

Responsible Individual: Matthew Gomez
Completion Date: 11/30/94

3. Continue investigation to determine the extent of the deficiency as follows:

- Review Design Review DRRs for Design Packages 1C, 2B & 2C on a sheet by sheet basis (100%) for any discrepancies. Determine any potential impacts based on the review, and resolve all resulting discrepancies. Amend CAR response.

Responsible Individual: Matthew Gomez
Completion Date: 11/30/94

- Since no other Design Packages conducted Design Verifications using this QAP-3-2, Rev 4, no further review related to Design Verification is required.

B. EXTENT OF DEFICIENCY:

The DRRs for the Package 1B Design Verification have been reviewed on a sheet by sheet basis to ensure that comments have been resolved and to determine what documentation discrepancies existed. A listing has been generated which includes the DRR comment number, responsible individual, and corrections to be made (Attachment I). It was confirmed that all comments were resolved. The resulting documentation discrepancies found were determined to have no impact on Package 1B nor any work done to 1B.

Neither the Vienna office nor the Charlotte office have conducted Design Verification, and therefore have not utilized QAP-3-2.

The Vienna office has reviewed a sampling of packages which performed reviews using QAP-3-1, Rev. 4. This review did not identify the existence of similar deficiencies with the records. Based upon this sampling, review packages for MRS-SRD Rev.1 and Trans SRD Rev. 1, we conclude that the extent of deficiency does not include Vienna.

The Charlotte office has instituted an administrative control by assigning a Conformance Verification Individual to ensure similar problems do not occur there. Because of this, a separate review at the Charlotte office was not conducted.

Similar investigations will be conducted for Design Review DRRs to further identify the extent of the deficiencies.

10/11/94 LV.MG.PGS. 10/14-267

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

Amended Response (Continued)

C. ROOT CAUSE DETERMINATION:

1. The Design Verification process was governed by three processes: QAP-3-2, Rev 4; QAP-3-2, Rev 4, ATTACHMENT I; and QAP-3-1, Rev 4. Each of these processes had separate allocations of responsibilities and activities. For Design Package 1B, assignments were made for a Verification Chairperson and a Design Review Secretary per QAP-3-2 and QAP-3-2 ATTACHMENT I respectively. Apparently, there was no assignment made for a Lead Document Preparer (LDP) per QAP-3-1, Rev 4. The Design Review Secretary used QAP-3-1 only as a source of producing DRRs. QAP-3-1 Section 5.4.3 assigns the LDP the activity and responsibility of assuring that the Design Review Records (DRRs) are complete and that the required signatures have been obtained. Neither the Verification Chairperson nor the Design Review Secretary followed QAP-3-1 for completing the forms. Root Cause: The Design Verification was governed by two procedures, and three seperate processes. QAP-3-2 was followed, QAP-3-1 was not. Therefore, no LDP assigned and there was no individual directly tracking the status of the DRRs.

2. A contributing cause was that attention to specific procedural requirements by individuals completing the forms was not sufficient despite self-study training.

D. CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

1. The current Design Verification Procedure (QAP-3-2, Rev 5) provides clear responsibility to the Lead Document Preparer to assure that the Design Review Records (DRRs) are complete and that the required signatures have been obtained. The process is now governed by a single procedure, with all activities and responsibilities clearly defined. The Design Verification Leader has the activity of and responsibility for ensuring that the comment sheets (DVRs) are complete and that the required signatures have been obtained. No corrective action related to QAP-3-1 is required.

2. Training briefings were held for all M&O personnel who perform work to QAP-3-1, Rev.5, and QAP-3-2, Rev.5. The training was held in May and June of 1994 and covered the procedural requirements and a practice session for completing the required forms.

No further corrective actions are considered necessary. All remedial actions will be completed by 11/30/94.

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
CIVIL

Comment #	Req'd By	Correction
0-005	R. Clark	Strike-out, initial & date "disagree" comment
0-008	R. Clark	Strike-out, initial & date "disagree" comment
0-014	R. Clark	Strike-out, initial & date "disagree" comment
0-015	R. Clark	Strike-out, initial & date "disagree" comment
0-016	R. Clark	Strike-out, initial & date "disagree" comment
0-021	R. Clark	Strike-out, initial & date "disagree" comment
0-023	R. Clark	Strike-out, initial & date "disagree" comment
0-024	R. Clark	Strike-out, initial & date "disagree" comment
0-026	R. Clark	Strike-out, initial & date "disagree" comment
0-029	R. Clark	Strike-out, initial & date "disagree" comment
~~0-030~~	~~R. Clark~~	~~Strike-out, initial & date "disagree" comment~~ MD 9/30/94
0-031	R. Clark	Strike-out, initial & date "disagree" comment
0-033	A. Pakzad	Date strike-out over "Rejected"
0-034	R. Clark A. Pakzad	Strike-out, initial & date "disagree" comment Strike-out, initial & date "Rejected". Accept & initial final response.
0-038	A. Pakzad	Accept & initial
0-040	A. Pakzad	Accept & initial
0-041	A. Pakzad	Sign & date at bottom
0-042	A. Pakzad	Sign & date at bottom
0-043	A. Pakzad	Accept & initial

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
CIVIL

Comment #	Req'd By	Correction
0-044	A. Pakzad	Accept & initial
0-045	A. Pakzad	Accept & initial
0-046	A. Pakzad	Accept & initial
0-048	A. Pakzad	Accept & initial
0-049	A. Pakzad	Accept & initial
0-050	A. Pakzad	Accept & initial
0-057	A. Pakzad	Sign & date at bottom
0-063	A. Pakzad R. Clark	Sign & date at bottom. Accept & initial Sign & date at bottom
0-071	A. Pakzad	Accept & initial
0-084	A. Pakzad	Accept & initial
0-087	A. Pakzad	Accept & initial
0-088	A. Pakzad	Accept & initial
0-089	A. Pakzad	Accept & initial
0-090	A. Pakzad	Accept & initial
0-091	A. Pakzad	Accept & initial
0-092	A. Pakzad	Accept & initial
0-093	A. Pakzad	Accept & initial
0-094	A. Pakzad	Accept & initial
0-095	A. Pakzad	Accept & initial
0-096	A. Pakzad	Accept & initial

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
CIVIL

Comment #	Req'd By	Correction
0-097	A. Pakzad	Accept & initial
0-098	A. Pakzad	Accept & initial
0-099	A. Pakzad	Accept & initial
0-100	A. Pakzad	Accept & initial
0-101	A. Pakzad	Sign & date at bottom
0-102	A. Pakzad	Accept & initial
0-103	A. Pakzad	Accept & initial
0-104	A. Pakzad	Sign & date at bottom
0-105	A. Pakzad	Accept & initial

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
STRUCTURAL

Comment #	Req'd By	Correction
1-007	L. Engwall	Sign & date at bottom

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
ARCHITECTURAL

Comment #	Req'd By	Correction
2-005	D. Lumanlan	Sign & date at bottom
2-006	D. Lumanlan	Sign & date at bottom
2-007	D. Lumanlan	Sign & date at bottom
2-011	T. Sauer	Date along side initials
2-013	F. White	Provide response "See attached response page". Sign & date at bottom

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
ELECTRICAL

Comment #	Req'd By	Correction
4-004	W. French D. Barreres	Provide response. Sign & date at bottom. Initial acceptance block
4-005	W. French D. Barreres	Provide response. Sign & date at bottom. Initial acceptance block

PACKAGE 1B DESIGN VERIFICATION
DRR CORRECTIONS
MECHANICAL

Comment #	Req'd By	Correction
5-062	N.Rounavaara	Sign & date at bottom
5-063	N.Rounavaara	Sign & date at bottom
5-064	N.Rounavaara	Sign & date at bottom

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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

A. REMEDIAL ACTION:

- Review the Design Verification Document review records for Design Package 1B for all discrepancies and make required corrections.

Responsible Individual: Matthew Gomez
Completion Date: 10/15/94

- Determine any potential impacts to Design Package 1B based in the resolution of comments and make required corrections.

Responsible Individual: Matthew Gomez
Completion Date: 10/15/94

B. EXTENT OF DEFICIENCY:

- Review ESF Surface Design Packages that required design verification for similar discrepancies.

Responsible Individual: Matthew Gomez
Completion Date: 10/15/94

C. ROOT CAUSE DETERMINATION:

- Document Review Records (DRRs) were handled by several individuals during the review process. There was not an individual assigned to ensure that the documents were complete nor that they complied with procedural requirements. In addition, attention to specific procedural requirements by individuals completing the forms was not sufficient despite self-study training.

D. CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

- QAP-3-2 has been revised. Rev 05 does not use QAP-3-1 for performing design verification by design review. The Document Review Record (DRR) has been replaced by the Design Verification Record (DVR). Paragraph 3.6 defines the Design Verification Leader as "The individual assigned to ensure that the design verification is completed in accordance with this procedure:. Throughout the procedure the Design Verification leader is given responsibility to initiate/compile/develop/complete various elements of the required forms and documentation in accordance with procedural requirements, and is the focal point for coordinating these documents in the development stage.

- The discrepancies identified will be corrected by the reviewing ESF Surface Design. Extent of Deficiencies and evaluating impact of discrepancies on packages..

8/31/94 LV.MG.PGJ.8/94-234