



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

WBS 1.2.9.3
 QA

APR 04 1991

Carl P. Gertz, Project Manager, YMP, NV

ACCEPTANCE OF AMENDED RESPONSE, VERIFICATION OF CORRECTIVE ACTION, AND CLOSURE OF CORRECTIVE ACTION REQUEST (CAR) YM-91-007 RESULTING FROM THE OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT AUDIT 90-I-01

The Yucca Mountain Quality Assurance Division staff has accepted your amended response to CAR YM-91-007. Verification of the corrective action has been completed and determined to be satisfactory. As a result, the CAR is considered closed.

If you have any questions, please contact either Catherine E. Hampton at 794-7973 or Stephen R. Dana at 794-7176.

Catherine Hampton for
 Donald G. Horton, Director
 Yucca Mountain Quality Assurance Division

YMQAD:CEH-3043

Enclosure:
 CAR YM-91-007

cc w/encl:
 K. R. Hooks, NRC, Washington, DC
 S. W. Zimmerman, NWPO, Carson City, NV
 N. J. Brogan, SAIC, Las Vegas, NV, 517/T-08

cc w/o encl:
 J. W. Gilray, NRC, Las Vegas, NV

YMP-5

9104150182 910404
 PDR WASTE PDR
 WM-11

ADD: KHooks

182.7
 Encl. Wm-11
 NHQ3

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

14CAR NO.: YM-91-007
DATE: 11/09/90
SHEET: 1 OF 2
QA
WBS No.: 1.2.9.3

CORRECTIVE ACTION REQUEST

1 Controlling Document EDD-001, Rev. 0, and YMP/CM-007, Rev. 1	2 Related Report No. Audit 90-1-01
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3 Responsible Organization Engineering & Development Division	4 Discussed With G. Dymmel and J. Waddell
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10 Response Due 11/29/90	11 Responsibility for Corrective Action E. Petrie	12 Stop Work Order Y or N N
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5 Requirement:

QA Grading Report No. EDD-001, Page 4, Item F, states "The document shall cover all requirements necessary to establish the flowdown of requirements from source documents."

Page I-1 of Technical Requirements for the Yucca Mountain Project (YMP/CM-0007) states in part, "This document defines a basis traceable from the Waste Management Systems Requirements Document..."

6 Adverse Condition:

The flowdown of requirements from the WMSR Volume IV to, respectively, the MGDS System Requirements (SR), Site Requirements Document (SRD), Test & Evaluation Planning Basis (T&EPB), and Surface-Based Testing Facilities Requirements Document (SBTRFD), as shown in Figure I-1 of YMP/CM-0007 is not apparent. Examples are as follows:

1. Requirements in Section IV (SRD) should flow down from Section III (SR). Page IV-2 states, "All requirements in this section are based on the Site Characterization Plan..."
2. Requirements in Section V (T&EPB) should flow down from Section IV (SRD). The only references in Section V are to Neal, 1985, and the SCP. However, Page V-1 says the two figures in Section V are based on inputs from Section III (SR) and page V-5 says requirements to control testing are based on "[NEV]."

7 Recommended Action(s):

Identify the remedial actions to be taken to correct the deficiencies noted in Block 6. Investigate the program, process, activities, or documentation to determine the extent and depth of similar conditions to those listed on the CAR. Identify these deficiencies and provide the measures

8 Initiator Marc Meyer	Date: 10/26/90	9 Severity Level - 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/>	13 Approved By: OOA <u>James Blaylock for</u>	Date: 11/9/90
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15 Verification of Corrective Action:

Reference attached sheet for verification of corrective action 3/25/91

16 Corrective Action Completed and Accepted: QAR <u>[Signature]</u> Date <u>3/25/91</u>	17 Closure Approved By: OOA <u>[Signature]</u> <u>3/27/91</u>
--	--

ORIGINAL
THIS IS A RED STAMP

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

CAR NO.: YM-91-007
DATE: 11/09/90
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**CORRECTIVE ACTION REQUEST
(continuation sheet)**

7 Recommended Action(s) (continued)

required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

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

CAR NO. YM-91-007

DATE: 11/29/90

SHEET: 3 OF 5

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION RESPONSE

EXTENT OF DEFICIENCY:

The requirements document (CM-0007) is a unique, one-of-a-kind document that was prepared to temporarily take the place of portions of several higher tier documents that were or still are in preparation.

ROOT CAUSE:

An independent Root Cause Analysis disclosed the following root causes for the identified deficiencies:

1. Project documents addressing development of the Requirements Document (development criteria contained in the QA grading package and the Development Plan) lacked sufficient direction to preparers regarding format and methods of depicting flowdown.
2. Inadequate recognition by preparers of their responsibility and accountability for the quality of their document.
3. Fundamental purpose and scope of Project Office reviews not clearly defined by procedures for special cases where the Project Office is the preparer of the document (versus performing an acceptance review on a document that has been prepared under a Participant's QA program).
4. Project documents addressing development and review of the Requirements Document, including QMP-06-04, lacked sufficient information and criteria for reviewers regarding format, flowdown, and traceability.

REMEDIAL ACTION:

Additional regulatory, technical, management, and quality assurance reviews conducted in accordance with QMP-06-04 have been completed on YMP/CM-0007. The review criteria (see attached), under general guidance states in part:

ENCLOSURE |

REV. 10/9

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

CAR NO. YM-91-007

DATE: 11/29/90

SHEET: 4 OF 5

CORRECTIVE ACTION REQUEST
(continuation sheet)

"Since this is a pruned set of requirements, the sub-tier does not need to be sufficient to satisfy the upper tier requirement. However, the requirement must be derivable from the upper tier requirement or requirements starting with WMSR IV and must be sufficient with respect to the activities titled Midway Valley/Calcite Silica."

Also, technical review criteria number 6 states: "Is there clear and unambiguous flow down and linkage among all requirements?"

In response to reviewer comments, numerous changes were made to clarify traceability. Clarifications were made to nearly all pages. This ensured that the flow down from WMSR IV was clarified, reviewed, and accepted.

The specific examples given in the CAR were corrected as follows:

1. Page IV-1 of Rev. 1 noted the two primary SR statements which lead to the need for testing of the site. As a result of the review comments several clarifications were made. For example, Figure II-1, Figure V-1, and Figure V-2 were changed to give more explicit references. In addition, page IV-2 now states: "All requirements in this section are consistent with the Site Characterization Plan...."
2. The TEPB flows from sections III and IV. Explanation of this has been added. "NEV" references have been replaced with citations to upper tier requirements which formed the basis.

Please note that on page 1 of the Review Instructions it states that a hold on the completion of verification of H&N design products until the new revision of the requirements document was completed. That hold was never assigned. The document was released for use on November 28, 1990 and the verification of the design products is not scheduled for completion until the first week of December. Therefore, the hold is no longer necessary.

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

CAR NO. YM-91-007
DATE: 11/29/90
SHEET: 5 OF 5

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION TO PREVENT RECURRENCE:

As stated previously, CM-0007 is a unique, one-of-a-kind document. Even though there are no plans to prepare additional, similar documents, we have taken or are taking the following actions to ensure the quality of other types of documents that may be prepared by the Project Office in the future. The actions are numbered to coincide with the root causes that they address.

1. QMP-06-04 will be revised to provide additional guidance regarding the specificity of instructions that should be provided to the preparers of documents.
2. QMP-06-04 will be revised to include more specific direction to document preparers regarding their responsibility for the quality of the documents they prepare.
3. QMP-06-04 will be revised to be more specific regarding the purpose and scope of Project Office reviews in those special cases where the Project Office acts as the preparer of a document as opposed to reviews of documents prepared by Participants.
4. BTP-EDD-002 has been issued to provide more specific review criteria for document reviewers in the EDD. In addition, when the uniqueness of a document requires it, we will exercise additional care in identifying more specific supplemental guidance to the assigned reviewers.

The revisions to QMP-06-04 will be completed by 1/30/91 (Petrie/Alderson).

Edgar A. Petrie 11/30/90
RESPONSIBLE MANAGER DATE

Response Accepted S. Dana 12/5/90
Date

Response Accepted Colin L. ... 12-10-90
Office of QA Date

T&MSS PLANS AND PROCEDURES DIVISION (PPD)
DOCUMENT TRANSMITTAL/ACKNOWLEDGMENT RECORD

DATE: October 30, 1990
FROM: Vincent F. Iorii, Project Control
Branch Chief
Return to Mailstop 517/T-26

DT/AR:VFI:leb:1130
WBS #1.2.1.2.5
QA

DOCUMENT IDENTIFICATION NUMBER: YMP/CM-0007 REVISION: 2
TITLE: Technical Requirements for the Yucca Mountain Project (Midway
Valley Trenching and Calcite/Silica Activities)
AUTHOR/REQUESTER/CONTACT: George D. Dymmel, YMP, NV
DRAFT: H DATED: 10/30/90
ACTION REQUESTED: QMP-06-04 Review
ACTION RETURN DATE: 11/2/90
REVIEW AND COMMENT RESOLUTION MEETING:
TUESDAY: 10/30/90 8:00 A.M. Training Center Room 10

Distribution:

R. B. Barton, YMP, NV
W. R. Dixon, YMP, NV
W. A. Girdley, YMP, NV
D. G. Horton, YMP, NV
V. F. Iorii, YMP, NV
S. B. Jones, YMP, NV
E. H. Petrie, YMP, NV
A. C. Robison, YMP, NV
R. J. White, YMP, NV
W. A. Wilson, YMP, NV
R. C. Greenwold, H&N, Las Vegas, NV
J. A. Catozzi, REECO, Las Vegas, NV
H. Z. Dokuzoguz, SAIC, Las Vegas, NV, 517/T-39
G. A. Fasano, SAIC, Las Vegas, NV, 517/T-11
M. A. Glora, SAIC, Las Vegas, NV, 517/T-27
T. A. Grant, SAIC, Las Vegas, NV, 517/T-13
J. L. King, SAIC, Las Vegas, NV, 517/T-03
K. T. McFall, SAIC, Las Vegas, NV, 517/T-06
C. G. Pflum, SAIC, Las Vegas, NV, 517/T-27
J. N. Stellavato, SAIC, Las Vegas, NV, 517/T-32
T. E. Hinkebein, SNL, 6315, Albuquerque, NM

DOCUMENT RECEIVED FOR PROCESSING BY:

DATE

T&MSS PLANS AND PROCEDURES DIVISION (PPD)
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REVIEW AND COMMENT RESOLUTION MEETING:
TUESDAY: 10/30/90 8:00 A.M. Training Center Room 10

cc w/encl: (for information purposes)
Dwight Shelor, HQ (RW-3) FORS
G. D. Dymmel, YMP, NV
Helen S. Matthews, SAIC, Las Vegas, NV, 517/T-19
J. D. Waddell, SAIC, Las Vegas, NV, 517/T-21

cc w/o encl: (for status purposes)
C. P. Gertz, YMP, NV
J. R. Dyer, YMP, NV
F. R. Maxwell, YMP, NV
J. C. Calovini, H&N, Las Vegas, NV
R. E. Lowder, MACTEC, Las Vegas, NV
J. C. Mattimoe, MACTEC, Las Vegas, NV
R. F. Pritchett, REECO, Las Vegas, NV
D. M. Boak, SAIC, Las Vegas, NV, 517/T-43
E. H. Cathey, SAIC, Las Vegas, NV, 517/T-43
E. M. Cikanek, Harza, Las Vegas, NV, 517/T-39
George Derner, Harza, Las Vegas, NV, 517/T-39
T. E. Blejwas, SNL, 6313, Albuquerque, NM
Rich Kalinski, SNL, 6311, Albuquerque, NM
L. J. Klamerus, SNL, 6316, Albuquerque, NM
A. C. Matthusen, SAIC, Las Vegas, NV, 517/T-10
J. K. Prince, SAIC, Las Vegas, NV, 517/T-14
T. H. Pysto, SAIC, Las Vegas, NV, 517/T-11
R. R. Schneider, SAIC, Las Vegas, NV, 517/T-43
G. K. Beall, SAIC, Las Vegas, NV, 517/T-36
M. M. Dussman, SAIC, Las Vegas, NV, 517/T-14
R. G. Helms, SAIC, Las Vegas, NV, 517/T-24
J. H. Nelson, SAIC, Las Vegas, 517/T-04
S. C. Matthews, SAIC, Las Vegas, NV, 517/T-07
T. D. Tait, SAIC, Las Vegas, NV, 517/T-40
J. L. Younker, SAIC, Las Vegas, NV, 517/T-10
L. R. Hayes, USGS, Denver, CO

T&MS PLANS AND PROCEDURES DIVISION (PPD)
DOCUMENT TRANSMITTAL/ACKNOWLEDGMENT RECORD

DATE: October 30, 1990 *leb fo*
FROM: Vincent F. Iorii, Project Control
Branch Chief

DT/AR:VFI:leb:1130
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ACTION REQUESTED: QMP-06-04 Review
ACTION RETURN DATE: 11/2/90
REVIEW AND COMMENT RESOLUTION MEETING:
TUESDAY: 10/30/90 8:00 A.M. Training Center Room 10

NOTE: A format and content check on this document was not performed by the Technical and Management Support Services Plans and Procedures Division.

Enclosed is a copy of the YMP/CM-0007, Technical Requirements for the Yucca Mountain Project (Midway Valley Trenching and Calcite/Silica Activities) (Rev. 2), for an QMP-06-04 review. Per Section 5.0, Step 10, of QMP-06-04, the persons listed in the distribution of this transmittal are responsible for reviewing the enclosed document.

Complete the enclosed Document Review Sheets (DRS) and return to Elaine L. Spangler, SAIC, by the scheduled review comment completion date of Friday, November 2, 1990. Per QMP-06-04, Section 5.0, Step 14, comments received after the comment due date will be held and considered for the next revision if extension of due date is not requested from reviewer(s) and approved by the PCB manager.

If the responsible reviewer determines that a review by his organization is not desired or required, then he is to return the DRS with that indicated on the DRS. Should a review not produce any comments, the reviewer is to return the DRS form marked "No Comments." The original signed and dated DRS form must be returned and should be completed in black ink. Please note that if you line through any information, you must initial and date that line-through per QMP-17-01.

All reviewers must attend, or have representatives present at, the review and comment meeting to be held beginning at 8:00 a.m. on Tuesday, October 30, 1990, in Training Center Room 10. Those representatives must have authority to resolve comments. Designees should be so noted on the Document Review Sheet.

Should you have any questions regarding the document under review, please get in touch with the Author/Requester/Contact, or John D. Waddell at 794-7828, or Deidre M. Boak at 794-7268. If you have any questions about the review process, contact Elaine L. Spangler at 702) 794-7640, or FTS 544-7640.

T&MS PLANS AND PROCEDURES DIVISION (PPD)
DOCUMENT TRANSMITTAL/ACKNOWLEDGMENT RECORD

DATE: October 30, 1990 *leb jr*
FROM: Vincent F. Iorii, Project Control
Branch Chief

DT/AR:VFI:leb:1130
WBS #1.2.1.2.5
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ACTION REQUESTED: QMP-06-04 Review
ACTION RETURN DATE: 11/2/90
REVIEW AND COMMENT RESOLUTION MEETING:
TUESDAY: 10/30/90 8:00 A.M. Training Center Room 10

REVIEW CRITERIA: Complete the review pursuant to the specific criteria for your type of review contained in Attachment 2, 3, 4, or 5 and to the general criteria provided below:

General Guidance: Since this is a pruned set of requirements, the sub-tier does not need to be sufficient to satisfy the upper tier requirement. However, the requirement must be derivable from the upper tier requirement or requirements starting with WMSR IV and must be sufficient with respect to the activities titled Midway Valley/Calcite Silica.

Inputs developed under other QA programs must be determined to be acceptable. Successful resolution of any comments generated during this review will serve as the basis for acceptance of inputs developed under other QA programs.

Checklists shall be prepared to show that all review criteria were evaluated.

Example Checklist:

Reviewer _____ Date _____

Criterion: Technical #6

Section	Derivation Traceable	Logic/Rationale Acceptable	References Correct
_____	_____	_____	_____

In addition to these criteria, the technical review should cover the consistency of the document with the following:

1. The Office of Civilian Radioactive Waste Management system requirements document - Waste Management Systems Requirements, Rev. 1.
2. The applicable study plans (Midway Valley-"Study Plan for Evaluating the Location and Recency of Faulting Near Prospective Surface Facilities," 8.3.1.17.4.2; and, Calcite/Silica, Trench 14 -"Characterization of the Yucca Mountain Quaternary Regional Hydrology," Activity 8.3.1.5.2.1).
3. Functional analysis supporting the Midway Valley and Calcite/Silica activities.
4. Test and Evaluation Plan

10/29/90

REVIEW INSTRUCTIONS FOR REVIEW OF
TECHNICAL REQUIREMENTS FOR THE YUCCA MOUNTAIN PROJECT
REV. 1 TO BECOME REV. 2

1.0 GOAL

Issue Rev. 2 of the Technical Requirements for the Yucca Mountain Project.

2.0 THEME

To provide a document with zero defects where all inputs from laws and regulations been identified and there is clear and unambiguous flow down linkage among all requirements.

3.0 PROCESS

The major steps are shown below:

3.1. The EDD will place a hold on completion of verification of H&N design products (AP-5.20)

3.2. The review will be conducted under the QAG numbered EDD-001, Rev. 1. The review process will comply with QMP-06-04, Rev. 1. On October 29, 1990, a background briefing will be provided and all reviewers are to assure that their training records are current for QMP-06-04, Rev. 1. The review will start October 30, 1990. The end of the review comment period is targeted for completion by November 2, 1990.

The lead organization for the review is the System Branch. The coordinators will be G. Dymmel, J. Waddell, D. Boak, and E. Spangler.

3.3. REVIEW ASSIGNMENTS

Regulatory Review

SPECIALTY

NWPA/NRC
NEPA
DOE Orders and others
Safety Regulations

REVIEWERS

M. Glora
G. Fasano
C. Pflum
R. White

Technical Review

SPECIALTY

REVIEWERS

Engineering and Construction
Seismic
Faulting Hazards
Sample Management
Environmental
Construction
Systems
Performance Assess.*
TE Process
Testing Linkage

R. White, R. Greenwold, W. Wilson
J. King
T. Grant
N. Stellavato
G. Fasano
J. Catozzi
H. Dokozoguz
T. Hinkebein
S. Jones
A. Girdley

Only Criteria
1, 5, and 6

* Assess magnitude of potential adverse impact of site activity and establish controls placed on the activity.

Management Review

AREA

REVIEWERS

EDD
POCD
Site Operations
RSED
POCD
Quality Assurance

Ted Petrie
Wendy Dixon
Winn Wilson
Bob Barton
Ace Robison, Vince Iorii
Don Horton

Quality Assurance Review

AREA

REVIEWERS

QA

Ken McFall

3.4. After comment resolution the document will be revised and issued as a controlled document.

3.5. AUTHORS AND SUPPORT

George Dymmel, Lead Author
John Waddell
Ed Cikanek
George Derner
Hank Cathey
Tom Pysto
Rayce Prince
Frank Maxwell
Russ Dyer
Augie Matthusen
Rich Kalinski, SNL (LATA)
Leo Klamerus, SNL
Ralph Schneider
Deirdre Boak

3.6 REVIEW SCHEDULE

Background briefing	10/29/90
- Review instructions	
- QARD and QAPD	
- QA Grading Package	
- QMP-06-04	
Document overview	10/30/90
- Review package handout	
Perform review	10/30/90 - 11/2/90
Comment resolution	11/3/90 - 11/9/90
Document revision	Goal to be complete mid November

MANAGEMENT REVIEW CRITERIA

1. Does any change to existing policy expressed in the document represent a conscious decision at the appropriate management level?
 2. Does any condition with, or change to, organizational responsibility assignments represent a conscious decision at the appropriate management level?
 3. Where the document affects the reviewing organization, are management and administrative impacts acceptable?
 4. If interfaces between U.S. Department of Energy and participants are involved, is the interface consistent with existing contracts or agreements?
 5. Is document content consistent with established HQ and Project Office objectives?
- !

REGULATORY REVIEW CRITERIA

1. Is the document content consistent with applicable regulatory requirements, if any?
2. Does the document content affect existing regulatory commitments and, if so, is it consistent with such commitments?
3. If the document makes any commitments or addresses a topic of regulatory interest, is it consistent with existing or intended Program and Project policy?
4. Are the sources of information and data referenced and traceable?
5. Is there any contradiction between DOE Orders and regulatory requirements or commitments, and if so, what will be the method of resolution?

!

TECHNICAL REVIEW CRITERIA (S. Jones and A. Girdley only review to criteria
1, 5, and 6)

1. Are inputs and input sources current, correct, and adequate for the intended use?
2. Are those assumptions within the scope of responsibility of this organization stated explicitly? Are they reasonable?
3. Where applicable and where checked, are analytical approaches and results appropriate?
4. Is the document consistent with prescribed systems engineering requirements as defined in the Yucca Mountain Project Systems Engineering Management Plan?
5. Were potential interfaces or interactions, such as Environmental, adequately addressed?
6. Is there clear and unambiguous flow down and linkage among all requirements?

QUALITY ASSURANCE REVIEW CRITERIA

1. Does the document contain those QA requirements applicable to the controls or processes it addresses? (A flowchart or checklist of applicable QA requirements for the specific topic may be desirable for QA reviews).
2. Are responsibilities clearly delineated?
3. Are specified responsibilities and authority consistent with Project policy?
4. Where applicable, does the document clearly distinguish between performing, review, and verification activities?
5. Where verification activities are involved, does the document adequately address mechanisms for ensuring the necessary independence and technical competence of the verifier(s)?
6. If the document expresses requirements that exceed established QA program requirements, do such additional requirements reflect Project Office policy?
7. Does the document contain qualitative and or quantitative data, and if so, are tolerance and parameters provided for this data?
8. Based on the source requirements, is there a need to provide QA interpretations or clarifications to the document requirements?

YUCCA MOUNTAIN PROJECT
DOCUMENT ACTION REQUEST

Y-AD-125
9/90

TO: PROJECT OFFICE, PROJECT CONTROL BRANCH

Document Title/Subject/Type: Technical Requirements for the Yucca Mountain Project
(Midway Valley Trenching and Calcite/Silica Activities); all sections

Document Number/Revision: (if any) YMP/CM-0007, Rev. 1 to become Rev. 2. Review copy
marked Draft H.

Action Requested: (check only one entry)

[NA] Development of new document

[NA] Change to existing document

[X] Review of attached document

[NA] Other: (specify) _____

Reason for Request: (briefly identify need, i.e., implements requirement, order, policy; in response to
SDR (identify SDR number(s), error or missing information, etc.) _____

The prior review was identified as inadequate during the October audit.

Therefore, a complete review of the incomplete document is requested.

CTH
10/29/90

[] Additional information/supporting material attached

FROM: George D. Dymmel

Requestor (print name)

Systems Branch

Organization

Phone No.: ext. 4-7577 Mailstop: P.O.

Request Date: 10/29/90 Requested Action Completion Date: 10/30/90
Completion by mid November

Manager Concurrence:

Edgar H. Petre
Signature

10/29/90

Date

TPO Approval: (if required)

N/A

ETH
10/29/90

Signature

N/A

Date

PROJECT OFFICE USE ONLY

Date received: 10/29/90

Request No.: 156

**YUCCA MOUNTAIN PROJECT
DOCUMENT ACTION INITIATION**

Y-AD-124
9/90

Requested Document Action: *(PCB make appropriate entries)*

Document Title/Subject/Type: Technical Requirements for the Yucca Mountain Project:
(Midway Valley Trenching and Calcite/Silica Activities)

[X] Request action per attached YMP Document Action Request (Request No. 156)

[] Other: _____

Responsible DD: E. H. Petrie, Director EDD

Print Name and Title

DD DOCUMENT ACTION INSTRUCTIONS

1. [X] CONCUR WITH REQUEST

[] REJECT REQUEST

Justification _____

[] Continued on attached sheet(s)

2. Document is: [X] Quality Related [] Not Quality Related

3. Change status: (if applicable) N/A [] Major change [] Minor change

4. Assigned Originating Organization(s): (if applicable) Systems Branch of EDD with support by
SNL, T&MSS, USGS, RSED, and POCD

5. Assigned Reviewing Organization(s): EDD, RSED, POCD, YMP QA Division, Site Manager's
Office, SAIC (T&MSS), H&N, REECO, SNL

6. Type of review(s) to be performed: Management, Regulatory, QA, and Technical

7. Approval/Acceptance Signatures required: (names and titles) E. H. Petrie, Acting Director, EDD,
YMP; D. G. Horton, Director QA Div., YMP; C. P. Gertz, Asst. Director, Office of
Geologic Disposal

[X] Additional Instructions continued on attached sheets(s) Attachment #1 Review instructions for
Review of Technical Requirements for the Yucca Mountain Project, Rev. 1, to
become Rev. 2.

Edgar H. Petrie
Responsible DD Signature

10/28/90
Date

DOCUMENT REVIEW
COVER SHEET

Y-AD-116
8/90

SECTION I. (PCB make appropriate entries)

Document Title/Subject: Technical Requirements for the Yucca Mountain Project (Midway Valley Trenching and Calcite/Silica Activities)

Document ID No: YMP/CM-0007 Draft No: H Revision No: 2 O Non-O

Technical Writer: John D. Waddell SME: George D. Dymmel
Print Name Print Name if other than Technical Writer

Primary Reviewer: _____ N/A
Print Name Title

Type Review(s) assigned: Management Regulatory QA Technical

Review Criteria supplied by: E. H. Petrie
Print Name

Review(s) recommended by Reviewer: Technical Peer

Review Package to Reviewer: 10/30/90 Review Package received: _____
Date Date

Comments due: 11/2/90 No comments Comments to Author: _____
Date Date

All comments responded to Comment response(s) disputed

Disputed comments resolved: _____ Disputed sheet(s) attached
Date

SECTION II. (Primary Reviewer or equivalent, complete when applicable)

Secondary Reviewer assigned: _____
Print Name

Secondary Reviewer is qualified and authorized to conduct review:

Primary Reviewer: _____
Signature Date

SECTION III. (DRS instructions)

a. Use black ink; number each comment; enter section or step number comment applies to; place * to left of Major Comments.

NOTE: A Major Comment is a comment that the reviewer has determined requires resolution prior to document acceptance. A Minor Comment is a comment other than a major comment.

b. If a technical or peer review is recommended, enter recommendation as a Major Comment and reason in Comments column along with document section(s) review recommended on.

c. Reviewer indicate acceptance of responses by checking "Yes" or "No" and initialing and dating adjacent to response. "No" checks shall be considered "Disputed" and shall be resolved by next higher level of management.

d. Reviewer verify final draft and sign acceptance in statement below:

I verify that all comment dispositions and/or dispute resolutions have been incorporated satisfactorily.

Reviewer Signature Date

**DOCUMENT REVIEW SHEET
(DRS)**

N-QA-041
10/90

Document ID No.:

YMP/CM-0007

If "NO" checked in acceptance column, see
attached CDRS
(* Denotes Major Comment)

Page of

REVIEW COMMENTS	RESPONSE	ACCEPTANCE		
		YES	NO	INITIAL/DATE

REVIEWED BY:

RESPONSE BY:

Signature

Date

Signature

Date

**YUCCA MOUNTAIN PROJECT
COMMENT DISPUTE RESOLUTION SHEET**

Y-AD-117
8/90

Document ID No. TMP/CH-0007

Page ___ of ___

Document Title/Subject: Technical Requirements for the Yucca Mountain Project (Midway Valley Trenching and Calcite/Silica Activities)

DISPUTED COMMENT/REASON

RESOLUTION

Submitted by:

Resolved by:

Signature

Date

Signature

Date



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

QA RECEIVED

JAN 17 1991
WBS 1.2.9.3
QA

JAN 16 1991

Donald G. Horton, Director, Yucca Mountain Quality Assurance Division, YMP, NV

CORRECTION TO RESPONSE TO CORRECTIVE ACTION REPORTS (CARs) YM-91-007 THROUGH YM-91-009

Reference: Letter, Petrie to Horton, dtd. 11/30/90

Item 1 on page 4 of 5 of the corrective action response to CAR Y17-91-007 (transmitted by the above referenced letter) referred to "Figure II-1." The correct figure is "Figure III-1."

If you have any questions, please call Bernard J. Verna of MAC Technical Services Company at 794-7410.

Edgar H. Petrie, Acting Director
Engineering & Development Division
Yucca Mountain Site Characterization
Project Office

EDD:EHP-1710

CC:

B. J. Verna, MACTEC, Las Vegas, NV
N. J. Brogan, SAIC, Las Vegas, NV





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

WBS 1.2.9.3
QA

QA RECEIVED

MAR 18 1991

MAR 19 1991

Donald G. Horton, Director, Yucca Mountain Quality Assurance Division, YMP, NV

ADDITIONAL INFORMATION ON THE RESPONSE TO CORRECTIVE ACTION REPORT (CAR)
YM-91-007

Please add the information given below to the response dated November 30, 1990,
for the subject CAR:

The statement "The document shall cover all requirements necessary to
establish the flowdown of requirements from the source documents" was a
self-imposed requirement that was not required by any upper level
document.

If you have any questions, please call George D. Dymel at 794-7577.



Carl P. Gertz
Project Manager

EDD:GDD-2674

cc:
B. J. Verna, MACTEC, Las Vegas, NV
N. J. Brogan, SAIC, Las Vegas, NV



VERIFICATION OF CORRECTIVE ACTION CAR YM-91-007

1. Remedial Action (Reference pages 3 & 4 of CAR)

- o First Paragraph, page 3 - Verified during Surveillance YM-SR-91-006 (reference Surveillance Report, items 1-12).
- o Page 4, Item 1 - Verified that Figures III-1, V-1, and V-2 were revised to show references. Page IV-2 was revised to state, "All requirements in this section are consistent with the Site Characterization Plan for the Yucca Mountain Site."
- o Page 4, Item 2 - References to "NEV" have been replaced with citations to upper tier documents.

Note: YMP/CM-0007, Revision 3 was used to verify bullets 2 & 3 above.

2. Letter EDD:GDD-2674, Gertz to Horton, dtd March 18, 1991 - Verified that the statement, "The document shall cover all requirements necessary to establish the flowdown of requirements from source documents," was deleted from QA Grading Report No. EDD-001 (reference attached report).

Note: With deletion of the above statement from the grading report, the first requirement stated in CAR 007 no longer exists.

3. Corrective Action to Preclude Recurrence (reference page 5 of CAR)

Reviewed QMP-06-04, Revision 2, with the following results:

- o Item 1 - Verified that Step 5 (Note) and Step 6 of the procedure resolve this item.
- o Item 2 - Verified that Step 7.a,b,c of the procedure resolve this item
- o Item 3 - Verified that this item has been resolved by the following steps found in the procedure:
 1. Step 5 (Note)
 2. Step 6
 3. 10 (Note)
 4. 11, g.
 5. Step 12
 6. Step 13
 7. Step 14
 8. Step 14 (first Note)
- o Item 4 - Reviewed BTP-EDD-002, Revision 0, and verified that the procedure contains specific review criteria for document reviews performed by the Engineering and Development Division.

S. Jan 3/25/91