



**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

**DEC 07 1993**

Robert M. Nelson, Jr., Acting Project Manager, YMP, NV

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST  
 (CAR) YM-93-003 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION  
 (YMQAD) AUDIT YMP-92-24 (SCP: N/A)

The YMQAD staff has verified the corrective action to CAR YM-93-003 and determined the results to be satisfactory. As a result, the CAR is considered closed.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Sam H. Horton at 794-7399.

Richard E. Spence, Director  
 Yucca Mountain Quality Assurance Division

YMQAD:RBC-1057

Enclosure:  
 CAR YM-93-003

- cc w/encl:
- K. R. Hooks, NRC, Washington, DC
  - S. W. Zimmerman, NWPO, Carson City, NV
  - J. W. Estella, SAIC, Las Vegas, NV
  - S. C. Stonebraker, M&O/TRW, Las Vegas, NV
  - B. H. Pope, M&O/TRW, Las Vegas, NV
  - J. C. de la Garza, YMP, NV
  - A. V. Gil, YMP, NV

- cc w/o encl:
- J. W. Gilray, NRC, Las Vegas, NV
  - N. J. Brogan, YMQAD/QATSS, Las Vegas, NV

150007

*Add: K. R. Hooks 11*  
*NH03 11*  
*WM-11*  
*102.7*

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

8 CAR NO.: YM-93-003  
DATE: 10/6/92  
SHEET: 1 OF 1  
QA

**CORRECTIVE ACTION REQUEST**

1 Controlling Document AP-3.6Q, Revision 1		2 Related Report No. YMP-92-24	
3 Responsible Organization YMP0		4 Discussed With C. Gertz/B. Cruz	
5 Requirement:  AP-3.6Q, Revision 1, Paragraph 5.1.3.2 requires that data that has not been (1) verified or (2) validated per NUREG 1298 or (3) is dependent on software that has not been validated, is identified and tracked in the same manner as to be determined data (TBD).  Paragraph 5.1.3.1 requires that to be determined data (TDB) must have a scheduled resolution date and be tracked in a log associated with the document which contains the data to be verified.			
6 Adverse Condition: Contrary to the above; Table 1 (page TBV-3) of Document YMP/CM-0006, Revision 2, does not delineate a scheduled resolution of data to be verified.			
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 checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input type="checkbox"/> Root Cause Determination			
13 Recommended Actions: Identify the remedial actions to be taken to correct the deficiency note in Block 6. Investigate the program processes, activities or documentation to determine the extent and depth of similar conditions as noted in Block 6. Identify these deficiencies and provide the measures to correct them.			
7 Initiator Sam H. Horton <i>Sam Horton</i> Date <u>10/06/92</u>		14 Issuance Approved by: QADD <i>R.C. Spence</i> Date <u>10/8/92</u>	
15 Response Accepted QAR Date		16 Response Accepted QADD Date	
17 Amended Response Accepted QAR <i>Sam Horton</i> Date <u>12/25/93</u>		18 Amended Response Accepted QADD <i>R.C. Spence</i> Date <u>01-28</u>	
19 Corrective Actions Verified QAR <i>Sam Horton</i> Date <u>12/2/93</u>		20 Closure Approved by: QADD <i>R.C. Spence</i> Date <u>12/0</u>	

ENCLOSURE

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

CAR NO. YM-93-003  
DATE: 11-9-92  
PAGE: \_\_\_\_\_ OF \_\_\_\_\_  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

1. Corrective Action Response for CAR # YM-93-003

A. Remedial Action

No remedial action is to be taken regarding the requirements documents in the current document hierarchy. These are shown in Attachment 1, an annotated version of the CCB Register Report, under the "Level 2-CCB Baselined" portion of the Report. The annotations indicate applicability and status of logs. These annotated documents will be superseded by others currently in preparation for the new MGDS document hierarchy.

B. Investigative Action

Investigation has shown that 5 of the 8 documents of a requirements or configuration data nature noted in Attachment 1 do not include the TBD/TBV logs. The status is annotated on the right hand margin of Attachment 1. The need for TBD/TBV logs is not specified in an existing procedure that pertains to document preparation such as OCRWM QAP 3.5, Technical Document Preparation. The current description of a log in AP-3.6Q, Configuration Management, is somewhat hidden in a procedure concerning the management of configuration items and documents. Also, the purpose of a TBD/TBV log is to summarize required technical information. Information concerning management prerogatives relative to organizational responsibilities and schedule tracking/control considerations are not appropriate in a technical document since they are subject to a different set of changing priorities. The absence of a TBD/TBV log is not adverse to quality since the TBD/TBV information is integral within the text of a requirements document.

C. Root Cause Determination

Not Applicable

*See attached 11/9/92 - EDD:BDH-829*

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

CAR NO. YM-93-003  
 DATE: 11-8-92  
 PAGE: 1 OF 2  
 QA

11/9/92

**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR # YM-93-003 (continuation)

**D. Corrective Action to Preclude Recurrence**

The corrective action is in three parts: (a) A DAR regarding AP-3.6Q will be submitted to delete TBD/TBV logs, for the reasons noted in paragraph 1.B above. (b) A DAR regarding OCRWM QAP-3-5, Preparation of Technical Documents, will be submitted to add the need of TBD/TBV/TBR logs for requirement documents. The logs will take the form of summary tables that show section numbers and TBD/TBV/TBR entries. No need for schedule or responsibility data will be included. (c) Project level documents for the new MGDS document hierarchy will include TBD/TBV/TBR logs. These documents are the Repository Design Requirements, Site Design and Test Requirements, Engineered Barrier Design Requirements, ESF Design Requirements and Surface Based Test Facility Design Requirements.

**22. Assigned Responsibility**

Action	Individual	Completion
1.A	N/A	
1.B	T. C. Geer	Completed October 30, 1992
1.C	N/A	
1.D (a)	T. C. Geer	Submit DAR by December 15, 1992
1.D (b)	T. C. Geer	Submit DAR recommendation to OCRWM Hq. by December 15, 1992
1.D (c)	T. C. Geer	Complete logs by March 31, 1993

3.

Response Approved:

W. B. Simecka Date: 11/6/92  
 W. B. Simecka

OCB REGISTER REPORT

DOCUMENT NUMBER	DOCUMENT TITLE	REV. NUMBER	CHANGE NUMBER	EFFECTIVE DATE	RESPONSIBLE ORGANIZATION
<b>PCCB - Level 1 - YMPO ACCEPTED</b>					
DOE/RW-0043	OCRWM Program Management System Manual	04	DCP-037	07/31/91	PCB
DOE/RW-0223	Program Change Control Procedure (PCCP)	04	DCP-037	03/31/92	PCB
DOE/RW-0313P	YMP Site Characterization Project Plan	00	DCP-041	01/28/92	PCB
DOE/RW-0334	Physical System Requirements - Overall System	00	DCP-044	01/17/92	EDD
DOE/RW-0319	Physical System Requirements - Store Waste for SCP Conceptual Design	00	DCP-046	01/17/92	EDD
DOE/RW-0253	Program Cost and Schedule Baseline (PCSB)	02	DCP-050	01/14/92	PCB
DOE/RW-0335	Interim Approach to MRS Facility Design	00	DCP-051	01/22/92	PCB
DOE/RW-0270P	Waste Management System Description (WMSD)	01	DCP-056	02/06/92	EDD
DOE/RW-0264	Waste Management System Requirements (WMSR) Vol. 1	02	DCP-056	02/06/92	EDD
DOE/RW-0268P	Waste Management System Requirements (WMSR) Vol. IV	02	DCP-056	02/06/92	EDD

**Level 2 - OCB Baseline**

LOGS EXIST (?)

YMP/CM-0006	Exploratory Shaft Facility Subsystem Design Requirements Document (ESF SDRD) for Title II ***	02	90/023	10/24/90	EDD
YMP/CM-0007	Technical Requirements for the Yucca Mountain Site Characterization Project Surface - Based Testing	07	92/088	06/15/92	EDD
YMP/CM-0008	Yucca Mountain Site Description (Basis for SCP Chapter 8)	00	91/015	04/10/91	RSED
YMP/CM-0009	Conceptual Design of a Repository (Basis for SCP Chapter 8)	00	91/016	04/10/91	EDD
YMP/CM-0010	Waste Package Design Basis (Basis for SCP Chapter 8)	00	91/017	04/10/91	EDD

NO

YES

N/A

N/A

NO

OCB REGISTER REPORT

DOCUMENT NUMBER	DOCUMENT TITLE	REV. NUMBER	CHANGE NUMBER	EFFECTIVE DATE	RESPONSIBLE ORGANIZATION	
Level 2 - OCB Baseline						<u>LOGS EXIST (?)</u>
YMP/CM-0011	Yucca Mountain Site Characterization Program Baseline	09	92/140	09/12/92	M&O	YES
YMP/CM-0015	YMP Cost and Schedule Baseline	03	92/031	02/26/92	PCB	N/A
YMP/CM-0016	Yucca Mountain Site Characterization Project Exploratory Studies Facility - Title I Technical Baseline. **** Vols I and III	00	92/082	06/15/92	EDD	NO (
YMP/CM-0017	Yucca Mountain Mined Geologic Disposal System Description*****	01	92/106	07/15/92	EDD	N/A
YMP/CM-0018	Yucca Mountain Mined Geologic Disposal Repository Design Requirements*****	00	92/105	07/15/92	EDD	NO
YMP/CM-0019	Yucca Mountain MGDS Exploratory Studies Facility Design Requirements*****	01	92/103	07/15/92 <sup>22</sup>	EDD	YES
YMP/CM-0020	Yucca Mountain MGDS System Requirements Document*****	01	92/132	09/21/92	EDD	NO
<i>CCB Controlled</i>						
<del>YMP/CC-0001</del>	<del>Work Breakdown Structure, Index and Dictionary - Annex II to the Project Management Plan *</del>	<del>N/A</del>	<del>93/033</del>	<del>10/28/92</del>	<del>M&amp;O</del>	
<del>YMP/CC-0002</del>	<del>Reference Information Base, Version 4.000</del>	<del>06</del>	<del>92/079</del>	<del>07/09/92</del>	<del>RSED</del>	
<del>YMP/CC-0004</del>	<del>Yucca Mountain Project Quality Assurance Level Assignment (QALA) Records</del>	<del>02</del>	<del>00</del>	<del>06/21/89</del>	<del>RSED</del>	
<del>YMP/CC-0006</del>	<del>Environmental Management Plan</del>	<del>00</del>	<del>91/027</del>	<del>01/18/91</del>	<del>P&amp;OCD</del>	
<del>YMP/CC-0007</del>	<del>Systems Engineering Management Plan</del>	<del>03</del>	<del>91/042</del>	<del>04/10/91</del>	<del>EDD</del>	



**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

**DEC 11 1992**

Carl P. Gertz, Project Manager, YMP, NV

EVALUATION OF RESPONSES TO CORRECTIVE ACTION REQUESTS (CAR) YM-93-001, YM-93-002, AND YM-93-003 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) AUDIT YMP-92-24

Reference: Ltr, Spence to Gertz, dtd 11/20/92

This letter supersedes the referenced letter.

The YMQAD staff has evaluated the responses to CARs YM-93-001 through YM-93-003. The responses have been determined to be unsatisfactory for the following reasons:

1.0 Corrective Action Response for CAR YM-93-001

- B. First line - Need to explain why investigations were made since July 1991 (i.e., explain the significance of that date).

Second sentence - Since there were only 15 Field Change Requests (FCR) identified, they should be specifically identified with a status matrix of each and this should be included in this CAR.

Next to last sentence - Need to clarify the difference between urgent and minor. Urgent FCRs do not necessarily waive the requirement for a technical evaluation.

- D. This section should state that the FCRs identified in Section B above will be technically evaluated. Copies of these evaluations shall be completed and maintained with the corresponding FCR. An impact of those implemented FCRs that had no technical evaluation will also be performed. If impacts exist, the extent and disposition of these impacts shall be identified in this CAR.

1.0 Corrective Action Response for CAR YM-93-002

- A. At the end of this paragraph, a statement should be made to provide an attachment to this CAR to show this action has been or will be completed.

- D. Fourth line, delete the phrase starting with the word "submits . . . baseline," and insert, "notifies the CCB in writing of document acceptance, (d) CCB updates the technical baseline. Also, in the old (d), delete the phrase "After CCB approval" and make the rest of the statement item (e).

DEC 11 1992

Note: The CCB should not be accepting technical documents. Its function is to update the technical baseline after acceptance by the Yucca Mountain Site Characterization Project Engineering & Development Division.

1.0 Corrective Action Response for CAR YM-93-003

- D. (b) A statement should be added to take into consideration what to do in case the Office of Civilian Radioactive Waste Management does not agree.

The next to last sentence should be clarified as to where will schedule information be officially shown (proceduralized).

Amended responses are required to be submitted to this office within ten working days of the date of this letter. Send the original of your responses to Nita J. Brogan, Science Applications International Corporation, Las Vegas, Nevada. If an extension to the due date is necessary, it must be requested in writing, with appropriate justification, prior to that date.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Sam H. Horton at 794-7399.



Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1326

Enclosures:

1. CAR YM-93-001
2. CAR YM-93-002
3. CAR YM-93-003

cc w/encls:

- K. R. Hooks, NRC, Washington, DC
- S. W. Zimmerman, NWPO, Carson City, NV
- S. D. Johnson, PSDO/RECo, Las Vegas, NV
- J. W. Estella, SAIC, Las Vegas, NV
- J. H. Rusk, MACTEC, Las Vegas, NV
- A. V. Gil, YMP, NV
- B. J. Verna, YMP, NV

cc w/o encls:

- J. W. Gilray, NRC, Las Vegas, NV
- ~~N. J. Brogan, SAIC, Las Vegas, NV~~
- S. H. Horton, SAIC, Las Vegas, NV

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

CAR NO. YMP-93-003  
DATE: 12/15/92  
PAGE: 1 OF 4  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

1. Corrective Action Response for CAR # YM-93-003

A. Remedial Action

No remedial action is to be taken regarding the requirements documents in the current document hierarchy. These documents are shown in Attachment 1 (an annotated version of the CCB Register Report) under the "Level 2-CCB Baseline" portion of the Report. The annotations indicate applicability and status of logs. Five of the annotated documents do not include the TBD/TBV logs: ESF Subsystem Design Requirements Document, Waste Package Design Basis, SCP Exploratory Studies Facility-Vols I & III, Mined Geologic Disposal Respository Design Requirements and MGDS System Requirements. These five documents will be superceded by others currently in preparation for the new MGDS document hierarchy, as noted below in Paragraph D. The new OCRWM Document Hierarchy of requirements documents at the program and project levels have notations throughout the document indicating data that is of TBD nature. Based on notations within these documents, the requirement for these documents to have TBD logs should not be required.

B. Investigative Action

Investigation has shown that 5 of the 8 documents of a requirements or configuration data nature noted in Attachment 1 do not include the TBD/TBV logs. The status is annotated on the right hand margin of Attachment 1. The need for TBD/TBV logs is not specified in an existing procedure that pertains to document preparation such as OCRWM QAP 3.5 procedure, Technical Document Preparation. The requirement for logs should be stated in this procedure for preparing technical documents, and the responsibility for updating and maintenance of the log should be assigned to the document custodian. The need for TBD/TBV data in design documents such as drawings and design specification is addressed in the design input process to reflect flow-down from the respective requirements documents or conditions of submittal of design documents into the YMP technical baseline.

*Ltz dtd 12/21/92 - EDD: BDH-1552*

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

CAR NO. YMP-93-003  
DATE: 12/15/92  
PAGE: 2 OF 4  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR# YM-93-003 (continuation)

C. Root Cause Determination

Not Applicable

D. Corrective Action to Preclude Recurrence

The corrective action is in three parts: (a) A DAR regarding AP-3.6Q will be submitted to delete TBD/TBV logs, for the reasons noted in paragraphs 1.A and 1.B above. (b) A DAR regarding OCRWM QAP-3-5, Preparation of Technical Documents, will be submitted to add the need of TBD/TBV/TBR logs for OCRWM requirement documents. The logs will take the form of summary tables that show section numbers and TBD/TBV/TBR entries. Since these are requirements documents and TBD/TBV/THR data will be annotated in the body of the requirements document, the schedule or responsibility data is not necessary. (c) Project level documents for the new MGDS document hierarchy will include TBD/TBV/TBR log, whether the DAR of paragraph (b) herein is approved or rejected. These documents are the Repository Design Requirements, Site Design and Test Requirements, Engineered Barrier Design Requirements, ESF Design Requirements and Surface Based Test Facility Design Requirements.

2. Assigned Responsibility

Action	Individual	Completion
1.A	N/A	
1.B	T. C. Geer	Completed October 30, 1992
1.C	N/A	
1.D (a)	T. C. Geer	Submit DAR by January 15, 1993
1.D (b)	T. C. Geer	Submit DAR recommendation to OCRWM Hq. by January 15, 1993
1.D (c)	T. C. Geer	Complete logs by March 31, 1993

3. Response Approved: W.B. Simecka Date: 12/15/92  
W. B. Simecka

anges Thru 04-Nov-1992

## OCB REGISTER REPORT

DOCUMENT NUMBER	DOCUMENT TITLE	REV. NUMBER	CHANGE NUMBER	EFFECTIVE DATE	RESPONSIBLE ORGANIZATION
<b>POCB - Level 1 - INFO ACCEPTED</b>					
OE/RW-0043	OCRM Program Management System Manual	04	DCP-037	07/31/91	PCB
OE/RW-0223	Program Change Control Procedure (PCCP)	04	DCP-037	03/31/92	PCB
OE/RW-0313P	YMP Site Characterization Project Plan	00	DCP-041	01/28/92	PCB
OE/RW-0334	Physical System Requirements - Overall System	00	DCP-044	01/17/92	EDO
OE/RW-0319	Physical System Requirements - Store Waste for SCP Conceptual Design	00	DCP-046	01/17/92	EDO
OE/RW-0253	Program Cost and Schedule Baseline (PCSB)	02	DCP-050	01/14/92	PCB
OE/RW-0335	Interim Approach to MRS Facility Design	00	DCP-051	01/22/92	PCB
OE/RW-0270P	Waste Management System Description (WMSD)	01	DCP-056	02/06/92	EDO
OE/RW-0264	Waste Management System Requirements (WMSR) Vol. 1	02	DCP-056	02/06/92	EDO
OE/RW-0268P	Waste Management System Requirements (WMSR) Vol. IV	02	DCP-056	02/06/92	EDO

**Level 2 - OCB Baseline****LOGS EXIST?**

YMP/CM-0006	Exploratory Shaft Facility Subsystem Design Requirements Document (ESF SDRD) for Title II ***	02	90/023	10/24/90	EDO	NO
YMP/CM-0007	Technical Requirements for the Yucca Mountain Site Characterization Project Surface - Based Testing	07	92/088	06/15/92	EDO	YES
YMP/CM-0008	Yucca Mountain Site Description (Basis for SCP Chapter 8)	00	91/015	04/10/91	RSED	N/A
YMP/CM-0009	Conceptual Design of a Repository (Basis for SCP Chapter 8)	00	91/016	04/10/91	EDO	N/A
YMP/CM-0010	Waste Package Design Basis (Basis for SCP Chapter 8)	00	91/017	04/10/91	EDO	NO

Attachment 1  
CAR YM 93-003

Page 2 of 2

Changes Thru 04-Nov-1992

## OCB REGISTER REPORT

DOCUMENT NUMBER	DOCUMENT TITLE	REV. NUMBER	CHANGE NUMBER	EFFECTIVE DATE	RESPONSIBLE ORGANIZATION	LOGS EXIST (?)
<u>Level 2 - OCB Baseline</u>						
YMP/CM-0011	Yucca Mountain Site Characterization Program Baseline	09	92/140	09/12/92	M&O	YES
YMP/CM-0015	YMP Cost and Schedule Baseline	03	92/031	02/26/92	PCB	N/A
YMP/CM-0016	Yucca Mountain Site Characterization Project Exploratory Studies Facility - Title I Technical Baseline. **** Vols I and III	00	92/082	06/15/92	EDD	NO
YMP/CM-0017	Yucca Mountain Mined Geologic Disposal System Description*****	01	92/106	07/15/92	EDD	N/A
YMP/CM-0018	Yucca Mountain Mined Geologic Disposal Repository Design Requirements*****	00	92/105	07/15/92	EDD	NO
YMP/CM-0019	Yucca Mountain MGDS Exploratory Studies Facility Design Requirements*****	01	92/103	07/15/92	EDD	YES
YMP/CM-0020	Yucca Mountain MGDS System Requirements Document*****	01	92/132	09/21/92	EDD	NO
<u>CCB Controlled</u>						
YMP/CC-0001	Work Breakdown Structure, Index and Dictionary - Annex II to the Project Management Plan *	N/A	93/033	10/28/92	M&O	
YMP/CC-0002	Reference Information Base, Version 4.000	06	92/079	07/09/92	RSED	
YMP/CC-0004	Yucca Mountain Project Quality Assurance Level Assignments (QALA) Records	02	00	06/21/89	RSED	
YMP/CC-0006	Environmental Management Plan	00	91/027	01/18/91	P&OCD	
YMP/CC-0007	Systems Engineering Management Plan	03	91/042	04/10/91	EDD	

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

CAR NO. YM-93-003  
DATE: 1-19-93  
PAGE: 1 of 3  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

1. Corrective Action Response for CAR # YM-93-003

A. Remedial Action

No remedial action is to be taken regarding the requirements documents in the current document hierarchy. These documents are shown in Attachment 1 (an annotated version of the CCB Register Report) under the "Level 2-CCB Baseline" portion of the Report. The annotations indicate applicability and status of logs. Five of the annotated documents do not include the TBD/TBV logs: ESF Subsystem Design Requirements Document, Waste Package Design Basis, SCP Exploratory Studies Facility-Vols I & III, Mined Geologic Disposal Respository Design Requirements and MGDS System Requirements. These five documents will be superceded by others currently in preparation for the new MGDS document hierarchy, as noted below in Paragraph D. The new OCRWM Document Hierarchy of requirements documents at the Program and Project levels have notations throughout the document indicating data that is of TBD nature.

B. Investigative Action

Investigation has shown that 5 of the 8 documents of a requirements or configuration data nature noted in Attachment 1 do not include the TBD/TBV logs. The status is annotated on the right hand margin of Attachment 1. The need for TBD/TBV logs is not specified in an existing document that pertains to technical document preparation such as OCRWM QAP 3.5 procedure, Technical Document Preparation. The requirement for logs should be stated in this procedure for preparing technical documents, and the responsibility for updating and maintenance of the log should be assigned to the document custodian. The need for TBD/TBV data in design documents such as drawings and design specification should apply to the design input process to reflect a flow-down from the respective Project level requirements documents.

*ltr. dtd. 1/19/93 - EPD:BDH-2046*

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

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PAGE: 2 of 3  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR# YM-93-003 (continuation)

C. Root Cause Determination

Not Applicable

D. Corrective Action to Preclude Recurrence

The corrective action is in three parts:

(1) A DAR regarding OCRWM procedure QAP 3.5, Preparation of Technical Documents, will be submitted to add the need of TBD/TBV logs for OCRWM requirement documents. The logs will take the form of summary tables that show section numbers and TBD/TBV entries. Since these are requirements documents and TBD/TBV data will be annotated in the body of the requirements document, the schedule or responsibility data is not necessary.

(2) Project level requirements documents for the new MGDS document hierarchy will include TBD/TBV data, whether the DAR noted above is approved or rejected. Project level requirements documents will also specify that design organizations incorporate the requirements for control of TBD/TBV data in their design process. The Project level documents are the Repository Design Requirements, Site Design and Test requirements, Engineered Barrier Design Requirements, ESF Design Requirements and Surface Based Test Facility Design Requirements.

(3,a) A DAR regarding AP-3.6Q will be submitted to revise paragraph 5.1.3, Requirements Traceability Identification, to delete the requirement of organizational responsibility and schedule resolution data. (3,b) After the above Project level documents have incorporated TBD/TBV data and are approved, another DAR regarding AP-3.6Q will be submitted to: delete reference to TBD/TBV logs for the reasons noted in paragraph 1.B; and clarify that the existence of such logs is verified in the CM process as complying with the Project level requirements noted in (1) above, but that TBD/TBV data is maintained by the document custodian.

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

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	QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR YM-93-003 (Continuation)

2. Assigned Responsibility

Action	Individual	Completion
1.A	N/A	
1.B	T. C. Geer	Completed October 30, 1992
1.C	N/A	
1.D (1)	T. C. Geer	Submit DAR recommendation to OCRWM by February 28, 1993
1.D (2)	T. C. Geer	Complete by April 30, 1993
1.D (3,a)	B. G. Cruz	Submit DAR by Feb 28, 1993
1.D (3,b)	B. G. Cruz	Submit DAR by May 31, 1993

3. Response Approved: WBSimecka Date: 1/19/93  
W. B. Simecka



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

JAN 0 5 1993

Carl P. Gertz, Project Manager, YMP, NV

EVALUATION OF RESPONSE TO CORRECTIVE ACTION REQUEST (CAR) YM-93-003 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) AUDIT YMP-92-24

The YMQAD staff has evaluated the response to CAR YM-93-003. The response has been determined to be unsatisfactory because in Section D, "Corrective Action to Preclude Recurrence," the proposed corrective action is to revise Office of Civilian Radioactive Waste Management (OCRWM) procedure Quality Assurance Procedure (QAP) 3-5, to add the need for To Be Determined/To Be Verified/To Be Resolved (TBD/TBV/TBR) logs for OCRWM requirements documents. However, QAP 3-5 is internal to OCRWM and is not applicable to the design organizations that are required to identify TBD/TBV/TBR data in design documents generated by them. The corrective action for this CAR should also address how the design organizations (Raytheon Services Nevada and Management and Operating Contractor) will identify TBD/TBV/TBR data under their program. This may be accomplished by having the Yucca Mountain Site Characterization Project Office direct the design organizations to ensure that controls for the identification of TBD/TBV/TBR data be included in their applicable procedures.

An amended response is required to be submitted to this office within ten working days of the date of this letter. Send the original of your response to Nita J. Brogan, Science Applications International Corporation, Las Vegas, Nevada. If an extension to the due date is necessary, it must be requested in writing, with appropriate justification, prior to that date.

If you have any questions, please contact either Robert B. Constable at 794-7945 or Sam H. Horton at 794-7399.

Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1744

Enclosure:  
CAR YM-93-003

cc w/encl:  
K. R. Hooks, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
S. D. Johnson, PSDO/REEC, Las Vegas, NV  
J. W. Estella, SAIC, Las Vegas, NV  
Phillip Jones, M&O/TRW, Las Vegas, NV  
R. L. Maudlin, MACTEC, Las Vegas, NV  
A. V. Gil, YMP, NV  
B. J. Verna, YMP, NV

Carl P. Gertz

-2-

JAN 05 1993

cc w/o encl:

J. W. Gilray, NRC, Las Vegas, NV

~~N. J. Brogan, SAIC, Las Vegas, NV~~

S. H. Horton, SAIC, Las Vegas, NV

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

CAR NO. YM-93-003  
DATE: 4/15/93  
PAGE: 1 OF 3  
QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

1. Corrective Action Response for CAR # YM-93-003

A. Remedial Action

No remedial action is to be taken regarding the requirements documents in the current document hierarchy. These documents are shown in Attachment 1 (an annotated version of the CCB Register Report) under the "Level 2-CCB Baseline" portion of the Report. The annotations indicate applicability and status of logs. Five of the annotated documents do not include the TBD/TBV logs: ESF Subsystem Design Requirements Document, Waste Package Design Basis, SCP Exploratory Studies Facility-Vols I & III, Mined Geologic Disposal Repository Design Requirements and MGDS System Requirements. These five documents will be superseded by others currently in preparation for the new MGDS document hierarchy, as noted below in Paragraph D. The new OCRWM Document Hierarchy of requirements documents at the Program and Project levels have notations throughout the document indicating data that is of TBD nature.

B. Investigative Action

Investigation has shown that 5 of the 8 documents of a requirements or configuration data nature noted in Attachment 1 do not include the TBD/TBV logs. The status is annotated on the right hand margin of Attachment 1. The need for TBD/TBV logs is not specified in an existing document that pertains to technical document preparation such as OCRWM QAP 3.5 procedure, Technical Document Preparation. The requirement for logs should be stated in this procedure for preparing technical documents, and the responsibility for updating and maintenance of the log should be assigned to the document custodian. The need for TBD/TBV data in design documents such as drawings and design specification should apply to the design input process to reflect a flow-down from the respective Project level requirements documents.

C. Root Cause Determination

Not Applicable.

*Ltr dtd 4/15/93 - EDD:BDH-3736*

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

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QA

**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR YM-93-003 (Continuation)

D. Corrective Action to Preclude Recurrence

The corrective action is in three parts:

(1) A DAR regarding OCRWM procedure QAP 3.5, Preparation of Technical Documents, will be submitted to add the need of TBD/TBV logs for OCRWM requirement documents. The logs will take the form of summary tables that show section numbers and TBD/TBV entries. Since these are requirements documents and TBD/TBV data will be annotated in the body of the requirements document, the schedule or responsibility data is not necessary.

(2) Project level requirements documents for the new MGDS document hierarchy will include TBD/TBV data, whether the DAR noted above is approved or rejected. Project level requirements documents will also specify that design organizations incorporate the requirements for control of TBD/TBV data in their design process. The Project level documents are the Repository Design Requirements, Site Design and Test requirements, Engineered Barrier Design Requirements, ESF Design Requirements and Surface Based Test Facility Design Requirements.

(3,a) A revision regarding AP-3.6 will be submitted to delete the requirement of organizational responsibility and schedule resolution data for TBD/TBV data.

(3,b) After the above Project level documents have incorporated TBD/TBV data and are approved, another DAR regarding AP-3.6 will be submitted to: delete reference to TBD/TBV logs for the reasons noted in paragraph 1.B; and clarify that the existence of such logs is verified in the CM process as complying with the Project level requirements noted in (1) above, but that TBD/TBV data is maintained by the document custodian.

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

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**CORRECTIVE ACTION REQUEST (Continuation Page)**

CAR YM-93-003 (Continuation)

2. Assigned Responsibility

<u>Action</u>	<u>Individual</u>	<u>Completion</u>
1.A	N/A	
1.B	T. C. Geer	Completed October 30, 1992
1.C	N/A	
1.D (1)	T. C. Geer	Submit DAR recommendation to OCRWM by May 31, 1993
1.D (2)	T. C. Geer	Complete by May 31, 1993
1.D (3,a)	B. G. Cruz	Submit AP-3.6Q Revision by May 1993
1.D (3,b)	B. G. Cruz	Submit DAR by May 31, 1993

3. Response Approved: *Edgon # Peterson for* Date: 4/15/93  
W. B. Simecka

NOTE: Based on the fact that procedure QAP 3.5 and procedure AP 3.6Q have not been officially issued, this Corrective Action Request will remain open. At the time these procedures are issued, a verification will be made to ensure that no changes to the procedures have been made which will impact the stated corrective actions delineated in this CAR.

The CAR log should reflect an approximate 3 month extension as a reminder that close out verification should be checked.

*Sam Horton*  
8/13/93

*Refer to Corrective Action Verification  
completion documentation dated  
12/02/93 for closure. (3 pages)*

*Sam Horton*  
12/02/93

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

CAR NO. YM-93-003  
DATE: 12-2-93  
PAGE: 1 OF 3  
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

*See pages 2 and 3 for Description of  
Verification of Corrective Action for closure*

*Sam Hoxton  
12/02/93*

VERIFICATION OF CORRECTIVE ACTION  
FOR CAR 93-003  
DECEMBER 02, 1993

Based on the verification of corrective actions documented on August 13, 1993, two open items remained to be verified as being corrected. The first item involved the issuance of procedure AP-3.6Q which was accomplished on Sept. 8, 1993. The second item involved the proposed revision of procedure QAP-3.5 to include TBD/TBV logs in the OCRWM requirements documents. The first item has been verified as being accomplished.

With regard to the second item, it has been determined that a revision to procedure QAP-3.5 will not be needed, but rather, this procedure will be cancelled. Refer to the attached letter from Weston which made the evaluation and recommendation to cancel this procedure. It was also verified that the OCRWM requirements documents addressing the Mined Geologic Disposal System activities did in fact require that TBD/TBV data be noted in these documents, (refer to corrective action verification response dated 8/13/93, item 1D1). Since this requirement is addressed in these requirements documents, it is not necessary that it be included in QAP-3.5.

Based on the verification of the above corrective actions, this CAR is considered closed.



Sam H. Horton  
Quality Assurance Representative



955 L'ENFANT PLAZA, S.W.  
8TH FLOOR  
WASHINGTON, DC 20024-2196  
202-646-6600

CAR-93-003

Mr. Jackson Hale, Director  
Systems Engineering and Program  
Integration Division  
Office of Systems and Compliance  
Office of Civilian Radioactive  
Waste Management  
U.S. Department of Energy  
Washington, D.C. 20585

November 12, 1993

Subject: OCRWM QAP 3.5, Technical Document Preparation  
C254.001.023  
Contract DE-AC01-92-RW00227, Work Package 10016-002-005-0004-01

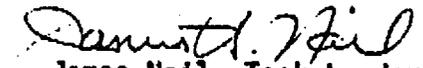
Dear Mr. Hale:

The staff of the Systems Department in accordance with Task Assignment 5D, item 1e has reviewed your query as to whether or not DOE QAP-3.5 will be needed in the future or can be canceled. We believe that, considering that all of the technical documents are now being prepared by the M&O and the significant effort that would be required to update it, it should be canceled.

If you have any questions, please contact me on (202) 646-6661.

Sincerely,

WESTON TECHNICAL SUPPORT TEAM

  
James Nail, Task Leader  
Systems Engineering  
Systems Department

Approved by

  
A. Lowell Snow  
Program Manager

cc: T. Van  
D. Callier  
Records Facility  
C. Weber

M. Senderling  
D. Shelor

L. Reboca  
L. Snow

S. Douara  
H. Victor

