



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

JUL 29 1996

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Technical Project Officer  
For Yucca Mountain  
Site Characterization Project  
TRW Environmental Safety Systems, Inc.  
Bank of America Center, Suite P-110  
101 Convention Center Drive  
Las Vegas, NV 89109

**EVALUATION OF RESPONSE TO DEFICIENCY REPORT (DR) YM-96-D-062 ISSUED  
TO SUPERSEDE PERFORMANCE REPORT YM-96-P-020 (SCP: N/A)**

The YMQAD staff has evaluated the response to DR YM-96-D-062. The 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, P.O. Box 98608, Mail Stop 455, Las Vegas, Nevada 89193-8608.

If you have any questions, please contact either Robert B. Constable at (702) 794-5580 or Mary G. McDaniel at (702) 794-1468.

*Robert B. Constable* for

Richard E. Spence, Director  
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2268

Enclosure:  
DR YM-96-D-062

cc w/encl:

T. A. Wood, DOE/HQ (RW-14) FORS  
J. G. Spraul, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
R. L. Strickler, M&O, Vienna, VA  
R. B. Justice, M&O, Las Vegas, NV  
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J. D. Christensen, M&O, Las Vegas, NV  
Records Processing Center

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV  
M. G. McDaniel, YMQAD/QATSS, Las Vegas, NV  
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D. G. Horton, OQA, NV

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PDR WASTE  
WM-11

PDR

YMP-5

Recip: J. Spraul

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☐ Performance Report  
☒ Deficiency Report  
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## PERFORMANCE/DEFICIENCY REPORT

## 1 Controlling Document:

Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, Rev. 5

## 2 Related Report No.

YM-ARC-96-03  
YMQAD-96-P020

## 3 Responsible Organization:

Kiewit/Parsons Brinckerhoff (Kiewit/PB)

## 4 Discussed With:

C. Rixford / J. Christensen

## 5 Requirement/Measurement Criteria:

QARD, Section 5.0, Paragraph 5.2.2, states in part: "Implementing documents shall include the following information as appropriate to the work to be performed:

- A. Responsibilities and organizational interfaces of the organizations affected by the document.
- B. A sequential description of the work to be performed including controls for altering the sequence of required inspections, tests, and other operations."

QARD, Section 2.0, Paragraph 2.2.10, states in part: "Implementing documents and documents that specify technical or quality requirements shall be reviewed to the following requirements:

- A. Review criteria shall be established before performing the review.
- C. The review shall be performed by individuals other than the preparer.

(Continued on Page 3)

## 6 Description of Condition:

NOTE: This DR is issued to supersede Performance Report YMQAD-96-P020 since resolution of the deficiency involves investigative actions.

PR YMQAD-96-P020 issued 12/21/95 identified the following description of condition:

Contrary to the above, MCP-2.0, Revision 13 does not:

1. Adequately define the responsibilities of the Construction Manager or Quality Control Manager and the sequential description of the work to be performed as it relates to the initiation and preparation of the Work Package.
2. Define the interface between MCP-2.0 and MCP-10.0 as it relates to the Work Package. MCP-10.0, Revision 9, Section 3.2.2, identifies how inspection hold and witness points are identified in the Work Package and Section 3.2.1 establishes requirements/guidance on Work Package content and review criteria.
3. Adequately define the process or address QARD, Section 2.0, Paragraph 2.2.10, requirements for the review, approval, and revision of the Work Process Description (WPD).

(Continued on Page 3)

## 7 Initiator

Mary G. McDaniel

Date

5/16/96

## 8 QA Review

QAR

Mary G. McDaniel

Date

5/16/96

## 10 Response Due Date:

20 Working Days From Issuance

## 11 QA Issuance Approval

QAR (PR)/AOQAM (DR)

R. Amundson

Date

5/24/96

## 12 Remedial Actions:

SEE PAGES 4 AND 5

## 13 Remedial Actions Response By:

R. Amundson

Date

7/8/96

## 14 Remedial Action Due Date

COMPLETE

Date

7/3/96

## 15 Remedial Action Response Acceptance

QAR

Date

## 16 PR Verification / Closure

QAR

N/A

Date

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5/16/96

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17 Recommended Actions:

Identify in Block 20, changes made to MCP-2.0 and MCP-10.0 per YMQAD-96-P020 to clarify the roles of the Construction Manager and Quality Control Manager in the Work Package preparation process; changes made to MCP-2.0 to control the review and approval of WPDs, Travelers, and Supplemental Travelers and revisions thereto; and training completed for the revised procedures.  
Identify in Block 18 Work Package reviews performed in accordance with the revised MCP-2.0 per YMQAD-96-P020 and the results of these reviews. Also, identify in Block 18 the action taken to address the generation of records by the WPD per YMQAD-96-P020.

(Continued on Page 3)

18 Investigative Actions:

SEE PAGE 4

19 Root Cause Determination:

NOT REQUIRED

20 Action to Preclude Recurrence:

SEE PAGES 4 AND 5

21 Response By: <i>R.E. Smith</i>	Date <i>7/8/96</i>	22 Corrective Action Completion Due Date <i>COMPLETE</i>
23 Response Accepted QAR <i>Mar. 1/1/97</i>	Date <i>7/16/96</i>	24 Response Accepted AOQAM <i>(Mountable)</i> Date <i>7.25.96</i>
25 Amended Response Accepted QAR	Date	26 Amended Response Accepted AOQAM Date
27 Corrective Action Verified QAR	Date	28 Closure Approved by: AOQAM Date

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7/18/94  
5/14/96

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Block 5, Requirement/Measurement Criteria, continued

E. The scope of the review shall consider all aspects of the document.

1. Each organization or technical discipline affected by the document shall review the document according to the established review criteria. Changes to the document.."

QARD, Section 17.0, Paragraph 17.2.2A, states: "Implementing documents shall:

1. Identify those documents that will become QA Records."

Block 6, Description of Condition, continued

4. Adequately define what is considered a revision to the Work Package as addressed by Section 3.2.4 and when Environmental Safety and Health, Construction, and Quality Control review is required. Revision to Travelers and WPDs are not being documented in accordance with 3.2.4.
5. The generation of records by the WPD is not addressed. WPD 2.20.3, Revision 4, "TBM Excavation-North Ramp," controls the generation of records that provide objective evidence for TCP-2.3.

Review of corrective actions associated with YMQAD-96-P020 identified the following conditions:

1. MCP-2.0, Revision 16, Section 3.2.4, states: "Review of revisions to Work Package(s), which may include revisions to the WPD, Traveler, or Supplemental Traveler, shall be conducted in accordance with Paragraph 3.2.1D....In the event a revision to one of these documents results in a scope change impacting the Work Package, the WPD, Traveler, or Supplemental Traveler, or applicable document shall be revised and processed in accordance with Paragraph 3.2.1D." Paragraph 3.2.1D does not exist.
2. WPD 2.23.7, Revision 0, effective date 3/18/96 reflects approval by the Construction Manager and review by the Quality Control Manager, on the WPD itself. MCP-2.0 does not address this review and approval process for the WPD and remedial actions accepted 1/31/96 for YMQAD-96-P020 indicate that WPDs will not be approved other than through the checklist and Master Approval Sheet.
3. WPD 2.23.7, Revision 0, Section 3.0, references Section C and Section D of the Work Package for applicable procedures and contract documents. Section C and D of the Work Package include lists of applicable procedures and contract documents, respectively. MCP-2.0 does not provide for the review of these listings if documents are added or deleted.

Block 17, Recommended Actions, continued

Modify MCP-2.0 to reflect the correct paragraph reference for review of revisions to WPDs, Travelers, and Supplemental Travelers and define the WPD review and approval process by the Quality Control Manager and Construction Manager, as reflected on the WPD.

Establish control for the review and approval of changes to the list of applicable procedures and contract documents identified in Section C and D of the Work Package.

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**PR/DR CONTINUATION PAGE**

**BLOCK 18:**

All active Work Packages were reviewed and Work Package Checklists were completed for any missed revisions to the WPD, Travelers, or Supplemental Travelers by the CM, QCM and ES&H Managers. No problems were encountered with the active packages and therefore, no review of inactive packages was deemed necessary.

As to establishing control for the review and approval of the list of applicable procedures and contract documents identified in Section C and D of the Work Packages, Kiewit/PB does not feel this is justified. All design documents generated by the A/E and received by K/PB which are used as References in any Work Package, Section C, are reviewed by the system described in MCP-6.0, Work Impact Evaluation Form. This form goes to the affected departments (Construction, Engineering, Environmental, Procurement, Quality Control, and Quality Engineering). Each department reviews the new or changed document, evaluates it for potential impact on existing work (including Work Packages) and signs the impact evaluation form. If a new document was needed to be added to the Work Package, QC or Construction would instruct the Site Document Analyst to include this document in the appropriate Work Package. The Site Document Analyst would add the document to the package and update the list contained in Section C.

Procedures contained in Work Package Section D are reviewed in accordance with MCP-5.0. QC and/or Construction are cognizant of any new procedure developed and would instruct the Site Document Analyst to include this procedure in the appropriate Work Package. The Site Document Analyst would add the document to the package and update the list contained in Section D.

K/PB does not feel that additional controls are needed at this time.

**BLOCK 20:**

MCP-2.0, paragraph 3.1, was rewritten to address the roles of the Construction Manager or the Quality Control Manager relating to the Work package development which now reads:

**3.1 Work Package Planning and Preparation**

Work Packages are planned, prepared and assembled under the direction of the Construction Manager (CM) for activities involving site construction. The Quality Control Manager (QCM) directs Work package preparation that do not involve site construction that are primarily QC activities such as inspection, witnessing, and/or monitoring. The CM, or QCM as applicable, shall ensure that the Letter of Authorization to proceed has been received, and the Work Package approved for both drilling and construction activities before any work commences.

Work Package planning and preparation shall be in accordance with the requirements of the procedure. When inspection, witnessing or monitoring activities are involved in the construction process, Work Package planning shall also include the requirements identified in Reference 2.4 "Inspection Planning and Control."

Prior to the development of a Work Package, K/PB prepares a Work Package Description (WPD) that defines the scope of work to be covered in the applicable Work Package. The general content of WPDs is described in Section 3.1.4 below.

Statements in MCP-10.0 relating to assembling and reviewing Work Packages were deleted and, if applicable, added to MCP-2.0.

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**PR/DR CONTINUATION PAGE**

**Block 20 - Actions to Preclude Recurrence - Continued**

Response to Review of correction activities associated with YMQAD-96-P020:

1. MCP-2.0, Paragraph 3.2.4 was revised to clarify that a revision to a WP may include a revision to the WPD, Traveler or Supplemental Traveler. Paragraph 3.2.4 requires that a revision to any of these documents be reviewed by Construction, QC, and ES&H in accordance with paragraph 3.2.1.

Training has been completed for MCP-2.0, Rev. 16 and MCP-10.0 Rev. 11.

2. Although it was agreed per YMQAD-96-P020 that review and approval of the WPD would not be recorded on the WPD themselves, but on the review checklists and MAS, continuing to sign off on the WPD is over and above the requirements of MCP-2.0 and does not impact anything. The WPD, if revised, still goes through review process in accordance with MCP-2.0 and is approved via the MAS.

A review of active WPDs was conducted and identified that, with the exception of WPD 2.20.3, Rev. 6, no records are generated in the WPDs. Records generated by WPD 2.20.3 are non-quality, for example, Safety & Fire Inspection, and do not warrant generating new, or revising existing procedures. QA records listed in WPD 2.20.3, Rev. 4, have been deleted and incorporated, if necessary, into appropriate implementing documents. Since this is an isolated case no further action will be taken. K/PB continues to comply with the requirements that QA records are generated by implementing documents only.

MCP-2.0 was changed to correct Paragraph 3.2.1D to read "3.2.1" only.

ORIGINAL  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Quality Assurance Requirements and Description (QARD), DOE/RW-0333P, Rev. 5		2 Related Report No. YM-ARC-96-03	
3 Responsible Organization: Kiewit/Parsons Brinckerhoff (Kiewit/PB)		4 Discussed With: Jon Christensen	
5 Requirement/Measurement Criteria: QARD, Section 5.0, Paragraph 5.2.2, states in part: "Implementing documents shall include the following information as appropriate to the work to be performed: A. Responsibilities and organizational interfaces of the organizations affected by the document. B. A sequential description of the work to be performed including controls for altering the sequence of required inspections, tests, and other operations." QARD, Section 2.0, Paragraph 2.2.10, states in part: "Implementing documents and documents that specify technical or quality requirements shall be reviewed to the following requirements: A. Review criteria shall be established before performing the review." (Contd. on Page 2) RRC 12-21-95			
6 Description of Condition: Contrary to the above, MCP-2.0, Revision 13 does not: 1. Adequately define the responsibilities of the Construction Manager or Quality Control Manager and the sequential description of the work to be performed as it relates to the initiation and preparation of the Work Package. 2. Define the interface between MCP-2.0 and MCP 10.0 as it relates to the Work Package. MCP-10.0, Revision 9, Section 3.2.2, identifies how inspection hold and witness points are identified in the Work Package and Section 3.2.1 establishes requirements/guidance on Work Package content and review criteria. 3. Adequately define the process or address QARD, Section 2.0, Paragraph 2.2.10, requirements for the review, approval, and revision of the Work Process Description (WPD). 4. Adequately define what is considered a revision to the Work Package as addressed by Section 3.2.4 and when ES&H, Construction, and QC review is required. Revisions to Travelers and WPDs are not being documented in accordance with 3.2.4. (contd. on Page 2) RRC 12-21-95			
7 Initiator Mary G. McDaniel Date 12-21-95		9 QA Review OAR Mary G. McDaniel Date 12-21-95	
10 Response Due Date 20 Working Days from Issuance		11 QA Issuance Approval OAR (PRI/ACC/M (DRI) Mary G. McDaniel Date 12-21-95	
12 Remedial Actions:  SEE PAGE 3			
13 Remedial Action Response By: J. Christensen Date 1/23/96		14 Remedial Action Due Date FEB 29, 1996 Date	
15 Remedial Action Response Acceptance OAR Mary G. McDaniel Date 1/31/96		16 PR Verification/Closure OAR Mary G. McDaniel Date 5/3/96	

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Block 5 continued

C. The review shall be performed by individuals other than the preparer.

E. The scope of the review shall consider all aspects of the document.

1. Each organization or technical discipline affected by the document shall review the document according to the established review criteria. Changes to the document..."

QARD, Section 17.0, Paragraph 17.2.2.A, states: "Implementing documents shall:

1. Identify those documents that will become QA Records."

Block 6 continued

5. The generation of records by the WPD is not addressed. WPD 2.20.3, Revision 4, "TBM Excavation - North Ramp," controls the generation of records that provide objective evidence for TCP-2.3.

*Superseded by YMQAD-96-D032*



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Block 12 - Remedial Actions - Continued

- 1&2 The roles of the CM and QCM shall be clarified in MCP-2.0. The work package requirements addressed in MCP-10.0 will be incorporated into MCP-2.0 and reference to MCP-10.0 will be deleted. MCP-10.0 will also be reviewed and revised to incorporate any required changes.
- 3.&4 MCP-2.0 will be revised to require Construction, QC and ES&H review of initial issuance and all revisions of Work Packages. New Work Package Review Checklists will be prepared for any revisions made to the WPD, Traveler or Supplemental Travelers and will be signed by the CM, QCM, and ES&H Manager. The Master Approval Sheet has also been revised to indicate the signature requirements for ES&H. WPDs will not be approved other than through the checklist and MAS.
- MCP-2.0 will be revised to enforce the above review process. All past segments will be evaluated to identify missed revisions and will be reviewed in accordance with the above. Training will occur for all applicable personnel to the new procedure.
5. Records should not be generated by the WPD. A review of WPDs will be performed to eliminate any record generation requirement and in those cases where records are not covered by other implementing documents, provisions will be made to incorporate the requirement in the applicable implementing documents of, if required, new implementing documents prepared.

*Superseded by YMDAD-9-P020*

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Conditions adverse to quality identified in this PR are transferred to DR YMQAD-96-D062 due to resolution of the deficiency requiring investigative actions.

  
Mary G. McDaniel, QAR

5/17/96  
Date

*Superseded by YMQAD-96-D062*