



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

APR 11 1996

Robert W. Craig
 Acting Technical Project Officer
 for Yucca Mountain
 Site Characterization Project
 U.S. Geological Survey
 101 Convention Center Drive
 Suite 860
 Las Vegas, NV 89109

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF DEFICIENCY
 REPORT (DR) YMQAD-95-D017 RESULTING FROM YUCCA MOUNTAIN
 QUALITY ASSURANCE DIVISION'S (YMQAD) AUDIT YM-ARP-95-20 OF
 U.S. GEOLOGICAL SURVEY (SCPB: N/A)

The YMQAD staff has verified the corrective action to
 DR YMQAD-95-D017 and determined the results to be satisfactory.
 As a result, the DR is considered closed.

If you have any questions, please contact either
 Robert B. Constable at 794-7945 or Dennis C. Threatt
 at 794-7173.

Robert B Constable _____ for.

YMQAD:RBC-1532

Richard E. Spence, Director
 Yucca Mountain Quality Assurance Division

Enclosure:
 DR YMQAD-95-D017

cc w/encl:
 J. G. Spraul, NRC, Washington, DC
 S. W. Zimmerman, NWPO, Carson City, NV
 T. H. Chaney, USGS, Denver, CO

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

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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:
DOE/RW-0333P, Rev. 4

2 Related Report No.
YM-ARP-95-20

3 Responsible Organization:
US Geological Survey (USGS)

4 Discussed With:
Warren Day, Tom Chaney

5 Requirement/Measurement Criteria:

QARD III.2.1.A Scientific investigations shall be planned in accordance with Section 2.0 of the QARD.
QARD 2.2.4 Planning shall be performed to ensure work is accomplished under suitably controlled conditions.
 2.2.4.C Identification of applicable standards and criteria.
QARD 2.2.2.B.3 The system shall provide positive control over external interfaces ...

YLP-4.1Q-YMSCO Par. 5.1.1.e determines the applicability of QARD requirements to the scope of work that is defined in the Procurement Plan

6 Description of Condition:

The Technical Data Information Form (TDIF) GS950708314211.033 for report "Stratigraphic Relations and Hydrologic Properties of the PTn Hydrogeologic Unit, Yucca Mountain, Nevada" by Moyer, Geslin, and Flint identifies that the report is not qualified because of the inclusion of some non-qualified borehole data. Most of the supporting data for the report is qualified. However, the WBS is classified as Q by DOE and is also so classified in the Participant Planning Sheet in the Planning and Control System (PACS). USGS also has classified this milestone as Q. The report should be qualified as required by the governing procurement documents and in order for it to be used in subsequent activities. The submittal of the report to DOE did not include a completed copy of the TDIF as required by YAP-5.1Q. Therefore, DOE had no formal notification that the report was not qualified. There is no documentation of any DOE change to the PACS requirements.

7 Initiator

Alan W. Rabe

Date 09/21/95

9 QA Review

QAR Alan W. Rabe

Date 09/21/95

10 Response Due Date

20 working days after issuance

11 QA Issuance Approval

QAR (PR)/AOQAM

Date 9/27/95

12 Remedial Actions:

13 Remedial Action Response By:

N/A

Date

14 Remedial Action Due Date

N/A

Date

15 Remedial Action Response Acceptance

QAR

N/A

Date

16 PR Verification/Closure

QAR

N/A

Date

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17 Recommended Actions:

Revise the TDIF to show the report as qualified. The provisions of YAP-SIII.3Q, Par. 3.15 must be followed when qualifying a report. Several options are available to correct the report qualification.:

1. Upgrade the data in accordance with procedure xxxxxx.
2. Clearly identify in the report which data is not qualified and include an evaluation that states that the conclusions are not dependent upon the nonqualified data.
3. Exclude the nonqualified data from the report.

Alternatively, obtain written approval of the nonqualified classification from DOE.

Also review the extent of this condition and identify corrective actions as appropriate.

18 Investigative Actions:

19 Root Cause Determination:

20 Action to Preclude Recurrence:

<p>21 Response by: See amended response Date</p>	<p>22 Corrective Action Completion Due Date: See amended response</p>
<p>23 Response Accepted</p> <p>QAR _____ Date _____</p>	<p>24 Response Accepted</p> <p>AOQAM _____ Date _____</p>
<p>25 Amended Response Accepted</p> <p>QAR <i>[Signature]</i> Date 12/7/95</p>	<p>26 Amended Response Accepted</p> <p>AOQAM <i>[Signature]</i> Date 12.12.95</p>
<p>27 Corrective Actions Verified</p> <p>QAR <i>[Signature]</i> Date 3/26/96</p>	<p>28 Closure Approved by:</p> <p>AOQAM <i>[Signature]</i> Date 4.8.96</p>

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Block 12: Remedial Actions:

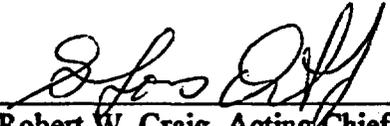
None

Block 18: Investigative Actions:

The Participant Planning Sheet in the Planning and Control System (PACS) states "QARD applies to this effort". This statement does not necessarily equate to the position that the product will be labelled "qualified" in the data tracking system. The work was done under the controls of the QA Program, one of which is YAP-SIII.3Q. The TDIF for the subject report was prepared under the guidance of YAP-SIII.3Q which states that developed data cannot be classified as "Qualified" if derived from unqualified data sources. The newly approved QARD (Revision 5, approved but not yet in effect) specifically states that unqualified data may be used without qualification in scientific investigations and design activities. See section III.2.5.A.

The USGS believes that it met the requirements of the PACS statement. If the requirements conveyed on the PACS Participant Planning Sheet do not meet the needs of DOE, then discussions should be initiated between DOE and the Participants to assure that the product requirements are clearly expressed in the planning sheets and that the two parties agree about their meaning.

Block 21: Response by:



Robert W. Craig, Acting Chief, Yucca Mountain
Project Branch

Date

10/26/95

Block 22: Corrective Action Completion Due Date:

Not applicable

10/26/95 CRAIG TO SPENCE

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Response Evaluation:

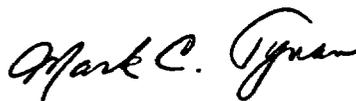
The USGS has misunderstood the requirement of both the Participant Planning Sheet (PPS) in the Planning and Control System (PACS) and the ~~AP-5.9Q~~ ^{QARD} requirements. Designation of the activity as having the QARD applicable in the PPS is the interface control established by DOE to have a qualified product delivered. The QARD has included provisions to allow work to proceed when not all items can be qualified. It then establishes the controls that are required in order for quality work to be properly documented and controlled. It does not give authorization to produce unqualified products which do not meet PPS requirements. Lessons Learned/Program Clarification No. 94-002 is useful to further understand the provisions established in the QARD. Please note the reference therein to AP-5.9Q for qualifying existing data.

It should be noted that there are several options available when one is contemplating using unqualified existing data. These were delineated in Block 17. If it is felt that production of an unqualified report is in the best interests of the project, then DOE written approval and/or revision of the PPS can be accomplished. However, it is unacceptable to ignore quality interface requirements established as required by the QARD as delineated in Block 5.

Based on the above, this response is rejected.


10/31/95

Alan W. Rabe
Sr. QA Specialist


11/2/95

MARK C. TYNAN
Physical Scientist
US DOE, YA SCO

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AMENDED RESPONSE YMQAD-95-D017

Block 12 USGS will discuss the subject report with YMPO Assistant Manager for Scientific Programs to determine the appropriate actions. These actions will be provided to YMQAD as a supplemental response.

Block 14 12/15/95 (Supplemental response)

Block 18 The TDIF for the subject report was prepared in accordance with YAP-SIII.3Q, R0. No further root cause investigative is necessary.

This is not necessarily an isolated case. However, further extent of conditions or impact determination is not necessary to perform at this time, as the need for upgrading other reports to Q status will be identified in an individual basis as the licensing process evolves.

Block 19 N/A

Block 20 All FY 96 USGS Milestones will be prepared in accordance with the guidance provided in the 11/15/95 letter from Susan Jones to L. Dale Foust and Bob Craig re: U.S. Department of Energy Policy on Synthesis Reports and YAP-SIII.3Q, R1.

Block 21 Response by: 
R. W. Craig, Acting Chief
FV Yucca Mountain Project Branch

11/30/95
Date

Block 22 N/A

11/29/95 CRAIG TO SPENCE

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SUPPLEMENTAL RESPONSE FOR YMQAD-95-D-017

Block 12 The USGS investigated the subject manuscript and the associated Technical Data Information Form to determine if it was feasible to consider the report conclusions to be qualified on the premise that any non-qualified data cited as source data were only used in a corroborative manner. It was determined that the lithostratigraphic data could be considered corroborative, however there were three additional points to be considered before the conclusions could be declared qualified. The three concerns are: 1) the report used the TOUGH code which was not qualified, 2) a developed data set cited as a source data was also not qualified, and 3) some physical properties data cited in the report are not to be used for site characterization. It is concluded that it is not practical to change the designation of the report conclusions from non-qualified to qualified. The USGS will request written approval from DOE of the non-qualified status.

Block 14 January 30, 1996 (anticipated date of DOE approval)

Block 21

Response by: _____

R.W. Craig
R.W. Craig, Acting Chief

For Yucca Mountain Project Branch

12/20/95

Date

Block 22 NA

12/20/95 CRAIG TO SPENCE

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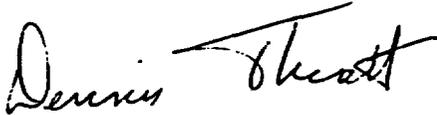
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VERIFICATION OF COMPLETION OF CORRECTIVE ACTION

This Deficiency Report has been verified to be acceptable for closure based on the following information:

DOE YMSCO has approved the decision to suspend work on qualifying the Moyer, Geslin, and Flint Report as indicated in letter Jones to Craig dated 2/19/96. This completes the action required in the approved response.



Dennis Threatt 3/26/96