



Department of Energy

Washington, DC 20585

JAN 15 1997

R. W. Craig, Technical Project Officer
for Yucca Mountain Site
Characterization Project
U.S. Geological Survey
1261 Town Center Drive
Building 4, Room 423, M/S 423
Las Vegas, NV 89134

EVALUATION OF RESPONSE TO DEFICIENCY REPORT (DR) YM-97-D-008
RESULTING FROM OFFICE OF QUALITY ASSURANCE (OQA) AUDIT USGS-ARP-97-03
OF U. S. BUREAU OF RECLAMATION

The OQA staff has evaluated the response to DR YM-97-D-008. 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, OQA/QATSS, P.O. Box 98608, Mail Stop 455, Las Vegas, Nevada 89193-8608.

If you have any questions, please contact either Mario R. Diaz at (702) 794-1489 or Kenneth T. McFall at (702) 794-5470.

R.W. Horton
for Donald G. Horton, Director
Office of Quality Assurance

OQA:MRD-0693

Enclosure:
DR YM-97-D-008

cc w/encl:
J. O. Thomas, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
T. H. Chaney, USGS, Denver, CO
Records Processing Center

cc w/o encl:
W. L. Belke, NRC, Las Vegas, NV
K. T. McFall, OQA/QATSS, Las Vegas, NV
D. G. Sult, OQA/QATSS, Las Vegas, NV
R. W. Clark, DOE/OQA, Las Vegas, NV

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

PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Quality Assurance Requirements Description (QARD), DOE/RW-0333P, Revision 5, Yucca Mountain Site Characterization Project (YMP)-U.S. Geological Survey (USGS)-Quality Management Procedure (QMP)-3.04, Revision 7	2 Related Report No. USGS-ARP-97-03
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3 Responsible Organization: USGS/U.S. Bureau of Reclamation	4 Discussed With: Bruce Parks and Tom Chaney
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5 Requirement/Measurement Criteria:
 QARD, Revision 5, Section 6.0, Paragraph 6.2.3, "Reviewing Documents," states:
 "Documents shall be reviewed for adequacy, correctness, and completeness, in accordance with the requirements of Subsection 2.2.10, "Document Review."
 YMP-USGS-QMP-3.04, Revision 7, Paragraph 5.2.2.1, requires reviewers to consider, at a minimum, "Technical correctness: Is the manuscript technically sound? Are all computations correct? Are assumptions reasonable and clearly stated? Are interpretations of data supported by the data as presented or referenced in the manuscript?"

6 Description of Condition:
 Contrary to the above requirements, the review of the document, "Geology of the North Ramp, Stations 4+00 to 28+00, Exploratory Studies Facility, Yucca Mountain Project, Yucca Mountain Nevada," failed to detect a statistical error.

7 Initiator Kenneth T. McFall <i>Kenneth T. McFall</i> Date 11/26/96	8 Is condition an isolated occurrence? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown; Must be Yes if PR
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10 Recommended Action: (Not required for PR)
 Perform remedial action to correct the error. Perform impact analysis

11 QA Review: QAR Kenneth T. McFall <i>Kenneth T. McFall</i> Date 11/26/96	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager issuance Approval: (QAR for PR) Printed Name DONALD G. HORTON Signature <i>Donald G. Horton</i> Date 12/2/96	
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22 Corrective Action Verified QAR Date	23 Closure Approved By: (N/A for PR) AOQAM Date
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OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

PR/DR NO. YM-97-D-008
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QA:L

PERFORMANCE/DEFICIENCY REPORT RESPONSE

¹⁴Remedial Actions:

To determine the impact of the statistical error found during audit ARP-97-03 analyses were rerun on the data reported in "Geology of the North Ramp, Stations 4 +00 to 28 +00, ESF, Yucca Mountain Project, Nevada" (TDIF DTN GS960908314224.020). As a result of the analysis minor changes will be made to the multivariate statistics section of the report. The changes are being added to the report to ensure the technical auditor's comments are addressed. An amendment to the report records package will be prepared and submitted to the RPC. All actions will be complete by 2/28/97. No further remedial actions are required.

¹⁵Extent of Condition (not required for PR):

It has been determined that the deficient condition only exists in terms of the subject report and does not extend to or otherwise impact other data sets or reports.

¹⁶Root Cause Determination (not required for PR):

Required Yes No

Not required per instructions in Item 10.

¹⁷Action to Preclude Recurrence (not required for PR):

Required Yes No

Not required per instructions in Item 10.

¹⁸Corrective Action Completion Due Date:

2-28-97

¹⁹ Response by:

Initial

Amended

Date

Phone

[Signature]
for R.W. Crayth

1/2/97

802-236-5080

2286

²⁰Response Accepted:

OAR

[Signature]

Date

1/9/97

²¹ Response Accepted (N/A for PR):

AQAM

[Signature]

Date

1/14/97

1/2/97 . CRAIG TO HORTON