



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

MAR 19 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

ISSUANCE OF DEFICIENCY REPORT (DR) YMQAD-96-D046 RESULTING FROM
OFFICE OF QUALITY ASSURANCE (OQA) SUPPLIER AUDIT OF COLORADO
DEPARTMENT OF AGRICULTURE (SCPB: N/A)

Enclosed is DR YMQAD-96-D046 generated as a result of OQA
Supplier Audit OQA-SA-96-012.

Please identify the corrective action to be taken and implemented
to correct the deficiency. A DR Continuation Page has been
provided. Send the original of your response to Deborah Sult,
YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas,
Nevada 89109. Response to the DR is due 20 working days from the
date of this letter. Any extension to due date must be requested
in writing, with appropriate justification, prior to the due
date.

If you have any questions, please contact either
Robert B. Constable at 794-7945 or Richard L. Maudlin at
794-7290.

Robert B Constable

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-1374

Enclosures:

1. DR YMQAD-96-D046
2. PR/DR Continuation Page

YMP-5

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PDR WASTE
WM-11 PDR

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102.7*

Robert W. Craig

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cc w/encls:

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

cc w/o encls:

W. L. Belke, NRC, Las Vegas, NV
R. L. Maudlin, YMQAD/QATSS, Las Vegas, NV
D. G. Sult, YMQAD/QATSS, Las Vegas, NV

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

8 Performance Report
 Deficiency Report
 NO. YMOAD-96-D046
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: OCRWM QARD, DOE/RW-0333P, Revision 5	2 Related Report No. OQA-SA-96-012
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3 Responsible Organization: Colorado Dept. of Agriculture/U.S. Geological Survey (USGS)	4 Discussed With: W. Young / W. Rodman / A. Lykins
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5 Requirement/Measurement Criteria:

A. QARD, Section 12.0, Subsection 12.2.1A, states in part: "Measuring and Test Equipment...shall be calibrated...against reference calibration standards having traceability to nationally recognized standards."
 B. QARD, Section 12.0, Subsection 12.2.7, states in part: "Measuring and Test Equipment calibration documentation shall include the following information....identification of the implementing document (including revision level) used in performing the calibration."
 C. QARD Section 17.0, Subsection 17.2.11, states in part: "...QA Records shall be temporarily stored in a container or facility with a fire rating of 1hr, or dual storage shall be provided."
 D. QARD, Section 12.0, Subsection 12.2.1, states in part: "Software developed or modified by the user shall be controlled in accordance with Supplement I, Software." QARD, Supplement I, Subsection I.2.3, states: "The software verification shall be performed and documented to insure that baseline elements meet the established requirements."

6 Description of Condition:

Contrary to the above:

A. No documentation could be provided to demonstrate the calibration of the devices used to monitor temperature, humidity, and barometric pressure in the laboratory.
 B. Calibration documentation for the calibration of USGS standards Troemner 211.11g x 1mg weight set, Troemner 1kg weight, and Ainsworth 222.221g x 1mg weight set does not reference the procedure(s) used to perform the calibration.
 C. Calibration records (worksheets) maintained by the Colorado Dept. of Agriculture are not being stored in a 1hr fire rated cabinet or in duplicate storage.
 D. Computer software has been developed by the Colorado Dept. of Agriculture in performing the calculations described in SOPs 2 and 4; however, there is no documentation to indicate that the software was tested for validity prior to use.

7 Initiator Richard L. Maudlin <i>R. Maudlin</i> Date 3/13/96	9 QA Review QAR <i>R. Maudlin</i> Date 3/14/96
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10 Response Due Date: 20 Working Days From Issuance	11 QA Issuance Approval QAR (PR)/AOQAM (DR) <i>R. Maudlin</i> for Date 3-19-96
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12 Remedial Actions:

13 Remedial Actions Response By: Date	14 Remedial Action Due Date Date
15 Remedial Action Response Acceptance QAR Date	16 PR Verification /Closure QAR Date

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DEFICIENCY REPORT

17 Recommended Actions:

- A. Take the necessary action to document last calibration of devices used to monitor laboratory environment. Document all future calibrations.
- B. Update all USGS calibration records to include the procedure and revision of the procedure used to perform USGS calibrations. Establish controls to assure this occurs in future calibrations.
- C. Either require Colorado Dept. of Agriculture to maintain calibration and other records in a 1hr fire rated facility or duplicate storage, or request all pertinent records to be submitted to USGS for storage.
- D. Document the testing (verification) of software program Doublesb.bas. Provide documented requirements for version control and software verification (testing for validity).

18 Investigative Actions:

19 Root Cause Determination:

20 Action to Preclude Recurrence:

21 Response By: Date	22 Corrective Action Completion Due Date
23 Response Accepted QAR Date	24 Response Accepted AOQAM Date
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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