



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

SEP 04 1996

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

**ISSUANCE OF DEFICIENCY REPORT (DR) YM-96-D-093 RESULTING FROM
OFFICE OF QUALITY ASSURANCE SUPPLIER AUDIT OQA-SA-96-027 OF DESERT
RESEARCH INSTITUTE**

Enclosed is DR YM-96-D-093 generated as a result of OQA-SA-96-027.

Please identify the corrective action to be taken and implemented to correct the deficiency. Send the original of your response to Deborah Sult, YMQAD/QATSS, P.O. Box 98608, Mail Stop 455, Las Vegas, Nevada 89193-8608. Response to the DR is due 20 working days from the date of this letter. Any extension to the 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 (702) 794-5580 or Stephen D. Harris at (702) 794-5522.

Robert B. Constable

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2547

Enclosure:
DR YM-96-D-093

9609120291 960904
PDR WASTE PDR
WM-11

100014

YMP-5

NH331/
102.7
wm-11

Recip: NMSS/HLUR

SEP 04 1996

R. W. Craig

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cc w/encl:

J. G. Spraul, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
T. H. Chaney, USGS, Denver, CO
R. E. Powe, YMQAD/QATSS, Las Vegas, NV
Records Processing Center

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV
S. D. Harris, YMQAD/QATSS, Las Vegas, NV
D. G. Sult, YMQAD/QATSS, Las Vegas, NV -
D. G. Horton, DOE/OQA, Las Vegas, NV

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

8 Performance Report
 Deficiency Report
NO. YM-96-D-093
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:
Quality Assurance Requirements and Description, DOE/RW-0333P, Revision 5

2 Related Report No.
OQA-SA-96-027

3 Responsible Organization:
U.S. Geological Survey/Desert Research Inst.

4 Discussed With:
Richard Powe, Tom Chaney, Herbert Haas

5 Requirement/Measurement Criteria:
Procurement Document Control, Section 4.0, paragraph 4.2.1C.1.: Procurement documents issued by each Affected Organization shall include the following provisions, as applicable to the item or service being procured: Quality Assurance Program Requirements including: A requirement for the supplier to have a documented Quality assurance (QA) program that implements applicable Quality Assurance Requirements and Description (QARD) requirements prior to the initiation of work.

Implementing Documents, Section 5.0, paragraph 5.2: Work shall be performed in accordance with controlled implementing documents.

6 Description of Condition:
Contrary to the above requirements, the complete QA program that applies to the Desert Research Institute scope of work, as described in their QA Manual, was not being implemented. The following discrepant conditions were observed during review of QA program implementation:

1. No objective evidence of QA Program training for Todd Enerson on form attachment 2.2. The forms, Attachment 2.1 and 2.2, were not used to indicate the QA Program Indoctrination and Training and Personnel Qualification for Dr. Haas. (QA Manual, 2.2.2)
2. Reports of data and tests run, submitted to U.S. Geological Survey, did not include dates of analysis. (P.O., Section III, Analytical Services)
3. There are no documented hand calculations for data manipulation by the spreadsheets used with signature and date traceable to the software. (QA Manual, 3.2.1, para. 2; Data Processing, 2.0, step 11)

7 Initiator
S.D. Harris *S. D. Harris* Date 08/26/96

9 Is condition an isolated occurrence?
 Yes No Unknown; Must be Yes if PR

10 Recommended Actions: (Not required for PR)

Prior to further technical activities, resolve all issues not in compliance with the USGS Procurement Document and the Desert Research Institute QA Manual. Perform investigative action to determine the extent of the deficiencies. Perform root cause determination in accordance with AP-16.4Q, Root Cause Determination. Assure indoctrination and training to the QA program is performed and documented. Obtain verification of resolution of discrepant conditions by OQA.

11 QA Review
OAR S. D. Harris *S. D. Harris* Date 08/26/96

12 Response Due Date
20 days from issuance

13 Affected Organization QA Manager Issuance Approval: (OAR for PR)

Printed Name **R. SPENCE** Signature *Robert R. Spence* Date **9.3.96**

22 Corrective Actions Verified
OAR _____ Date _____

23 Closure Approved by: (N/A for PR)
AOQAM _____ Enclosure _____ Date _____

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PR/DR CONTINUATION PAGE

6 Description of Condition (Continued from page 1):

4. There is no procurement agreement for calibration services for the balance used on YMP activities. [The balance is currently in calibration. A determination needs to be made based on the need for the precision and accuracy of the data, whether a procurement for calibration service is needed.] (QA Manual, 4.2.1, para. 3)
5. There is no documentation of receipt of Oxalic Acid from NIST on attachment 4.1. (QA Manual, 4.2.2)
6. There is no identification of QA records in the procedures. [The records are implied but not specified.] (QA Manual, 5.2.1)
7. There is no evidence of review by independent personnel of the technical procedures. (QA Manual, 6.2)
8. There is no evidence of a formal review of the QA Manual and procedures using the Document Review Form, attachment 6.1. (QA Manual, 6.2)
9. There is no calibration system in place for the balance used on YMP activities. (QA Manual, 8.2.1) The calibration sticker, attached to the balance, has no indication of the procedure used. No calibration stickers are on the counters used. (QA Manual, 8.2.7)
10. Records were not available for the following as required in the QA Manual, section 10.2.2:
 - o personnel indoctrination and training of the QA Program
 - o personnel qualification forms for Dr. Haas
 - o receipt inspection forms, Purchase Order forms
 - o review sheets (Document Review Records)
 - o sample tracking forms (attachment 7.1)

The following conditions should also be resolved to clarify the implementation process described in each procedure:

1. Data Processing procedure, section 4.0 states, "Current hard copy of data is held outside of room 229." This section should be rewritten in the procedure to indicate where all data is retained or be removed from the procedure.
2. Reference to procedure locations need to be clarified in RLD-02, Preparation of Benzene from Samples:
 - o section 2.1.6. The references made should be 2.1.4 and 2.1.5.
 - o Page 5, step 7. The references should be 2.1.5 through 2.1.11.
 - o Page 6, step 6. This reference should be 2.1.10.In addition, pages 23-25 are numbered incorrectly. The numbers should be changed to the correct sequence.
3. RLD-04, Scintillation Counting in Benzene Samples, section 2.2, paragraph 3 references section 7 of the procedure. The reference should be section 2.6.

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PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

15 Extent of Condition: (Not required for PR)

16 Root Cause Determination: (Not required for PR) Required Yes No

17 Action to Preclude Recurrence: (Not required for PR) Required Yes No

18 Corrective Action Completion Due Date:

19 Response by:

Initial

Amended

Date

Phone

20 Response Accepted

21 Response Accepted (N/A for PR):

QAR

Date

AOQAM

Date