



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

NOV 07 1995

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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-D010 THROUGH
YMQAD-96-D012 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE
DIVISION'S (YMQAD) AUDIT YM-ARP-96-01 OF UNIVERSITY OF NEVADA AT
RENO/SEISMOLOGICAL LABORATORY (SCPB: N/A)

Enclosed are DRs YMQAD-96-D010 through YMQAD-96-D012 generated as
a result of YMQAD Audit YM-ARP-96-01.

Please identify the corrective actions to be taken and
implemented to correct the deficiencies. PR/DR Continuation
Pages have been provided. Send the originals of your responses
to Deborah Sult, YMQAD/QATSS, 101 Convention Center Drive,
Suite 640, Las Vegas, Nevada 89109. Responses to the DRs are due
20 working days from the date of this letter. Extensions to due
dates must be requested in writing, with appropriate
justification, prior to the due dates.

If you have any questions, please contact either Robert B.
Constable at 794-7945 or Donald J. Harris at 794-7356.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-433

Enclosures:

1. DRs YMQAD-96-D010 through
YMQAD-96-D012
2. PR/DR Continuation Pages

YMP-5

9511150319 951107
PDR WASTE
WM-11 PDR

102.7
WM-11
11/13/95

NOV 7 1965

Wesley E. Barnes

-2-

cc w/encls:

- J. G. Spraul, NRC, Washington, DC
- S. W. Zimmerman, NWPO, Carson City, NV
- S. C. Stonebraker, M&O, Las Vegas, NV
- D. S. White, M&O, Las Vegas, NV
- E. R. Cooper, YMSCO, NV

cc w/o encls:

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

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 Deficiency Report
NO: YMQAD-96-D010
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:
QARD, DOE/RW-0333P, Revision 4

2 Related Report No.
YM-ARP-96-01

3 Responsible Organization:
USGS/UNRSL

4 Discussed With:
W. Rodman (USGS)/W. Nicks (UNRSL)

5 Requirement/Measurement Criteria:
QARD, Paragraph 4.2.1C.1, Procurement documents shall include a requirement for the supplier to have a documented QA program that implements applicable QARD requirements prior to the initiation of work. Paragraph 7.2.2A, Supplier selection shall be based on an evaluation, performed before the contract is awarded, of the suppliers' capability to provide items or services in accordance with the procurement document requirements.

6 Description of Condition:
Contrary to the above requirements, Teledyne Geotech model 18300, Drawing 990-18300-9600 seismometers were procured from an unqualified supplier whose QA program was not evaluated. The seismometers were provided with Calibration Certifications which contained the Coil Motor Constant reading which was subsequently used by UNRSL as calibration input without verifying the actual Coil Motor Constant prior to their calibration of the seismometer, Drawing 990-18300-9600, Model 18300, S/N3183.

7 Initiator *Donald J. Harris*
Donald J. Harris Date 10/25/95

9 QA Review
QAR *Donald J. Harris* Date 11/1/95

10 Response Due Date

11 QA Issuance Approval
QAR (PR)/AQAM (DR) *[Signature]* Date 11/7/95

12 Remedial Actions:

13 Remedial Action 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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17 Recommended Actions:

Either qualify the supplier to provide calibration services or verify the Coil Motor Constant Reading prior to use by UNRSL in their calibrations.

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

AQQAMM

Date

25 Amended Response Accepted

QAR

Date

26 Amended Response Accepted

AQQAMM

Date

27 Corrective Actions Verified

QAR

Date

28 Closure Approved by:

AQQAMM

Date

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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:
YMP-USGS-QMP-5.05, Revision 4, Section 5, Scientific Notebook

2 Related Report No.
YM-ARP-96-01

3 Responsible Organization:
USGS/UNRSL

4 Discussed With:
J. Brune, D. Von Seggen, B. Parks, T. Chaney

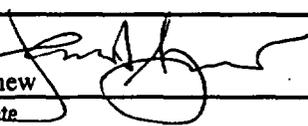
5 Requirement/Measurement Criteria:
Page 2) 5.2 Notebook Identification - Scientific Notebook shall be uniquely identified.

5.4 Notebook Format - shall be pre-bound. Each side of a page containing entries shall be numbered. Entries shall be made in a manner that will enable legible photocopies. Relevant loose materials should be securely fastened or referenced on the scientific notebook, as appropriate.

5.6 In-Progress Entries - in progress entries shall contain the following information:...Names of individuals performing the work, and dated initials or signatures for individuals making the entry.

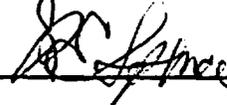
6 Description of Condition:

1) The scientific notebook in use for the digital seismic network contains information ^{on 8/14/95} of loose pages that are not numbered or signed. Some loose sheets appear to contain incomplete information to indicate that they are to be part of the scientific notebook.

7 Initiator
James D. Agnew  Date 10/26/95

9 QA Review
QAR  Date 11/1/95

10 Response Due Date

11 QA Issuance Approval
QAR (PR)/AQAM (DR)  Date 11/7/95

12 Remedial Actions:

13 Remedial Action 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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17 Recommended Actions:

Loose pages shall be bound on a regular basis (e.g., monthly), signed and dated by a supervisor, and reference made to it in the scientific notebook. Each page shall be numbered. Individuals performing the work shall sign a cover statement that the enclosed pages accurately describe their work and their notations of same. Signatures shall be made in dark ink (preferably black ink), and the computer print-outs should be bound separately and clearly marked as to which scientific notebook it is to be attached to.

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

AQQAMM

Date

25 Amended Response Accepted

QAR

Date

26 Amended Response Accepted

AQQAMM

Date

27 Corrective Actions Verified

QAR

Date

28 Closure Approved by:

AQQAMM

Date

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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:
YMP-USGS-QMP-17.1, Revision 7, Records Management for Record Sources

2 Related Report No.
YM-ARP-96-01

3 Responsible Organization:
USGS/UNRSL

4 Discussed With:
J. Brune, D. Von Seggen, B. Parks, T. Chaney

5 Requirement/Measurement Criteria:
Page 7) 5.3.4, Creation - Records should be created with dark markings against a light background.

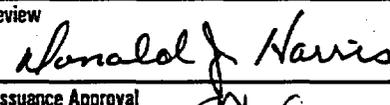
Page 6) 5.3.1.1 Lineouts may be used to identify corrected information by scribing a single line through the incorrect information using an indelible medium, preferably black ink, and then entering the correct information in close proximity to the lineout. The incorrect information should remain legible.

Page 6) 5.3.1 Accuracy - All corrections to records to ensure records are accurate require a correction acknowledgment. This may be accomplished by the date and initials or signature of the person authorized to make corrections in close proximity to the correction on the document.

6 Description of Condition:

- 1) Records of Earthquake locations for the 1993 Catalog, retained as QA Records by UNRSL were not generated in dark ink. Some entries were made in pencil. Some records appear to have been erased and re-written in as a correction.
- 2) The above records do not indicate any initials or signature that they were checked for accuracy by a supervising manager.
- 3) The above records are not being submitted in a timely manner to the USGS LRC, specifically, the supporting records for 1993 Catalog of Seismicity for the Southern Great Basin of Nevada and California, have not yet been submitted; i.e., the "pink sheets."

7 Initiator
James D. Agnew  Date 10/26/95

9 QA Review
QAR  Date 11/1/95

10 Response Due Date

11 QA Issuance Approval
QAR (PR)/AQAM (DR)  Date 11/7/95

12 Remedial Actions:

13 Remedial Action Response By:
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16 PR Verification/Closure
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17 Recommended Actions:

- 1.) Make all entries on summary forms in dark ink (preferably black ink). Corrections shall be made by lining out the error, initiating and dating the new entry.
- 2) The supervising manager shall check all entries and indicate agreement by initializing and dating the record.
- 3) Records shall be submitted to the USGS LRC (or M&O LRC as appropriate) as soon as possible after submission of the annual seismicity catalog to DOE, preferably no later than 45 days after report submission and approval by DOE.

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

AQQAMM

Date

25 Amended Response Accepted

QAR

Date

26 Amended Response Accepted

AQQAMM

Date

27 Corrective Actions Verified

QAR

Date

28 Closure Approved by:

AQQAMM

Date

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Block 5 continued

Page 3) 4.3 - The Record Source is responsible for...the timely submittal of QA records and records packages to the LRC.

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