

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION
QUALITY ASSURANCE SURVEILLANCE REPORT OF
UNITED STATES GEOLOGICAL SURVEY
CALIBRATION OF MEASURING AND TEST EQUIPMENT
SURVEILLANCE YMP-SR-93-026
CONDUCTED AT THE NEVADA TEST SITE
JUNE 29, 1993

ACTIVITIES SURVEILLED:

CALIBRATION AND CONTROL OF INSTRUMENTS USED BY THE
UNITED STATES GEOLOGICAL SURVEY IN QUALITY-AFFECTING
ACTIVITIES AT THE NEVADA TEST SITE

Prepared by: Charles C. Warren Date: 7-2-93
Charles C. Warren
Surveillance Team Leader
Yucca Mountain Quality Assurance Division

Approved by: Donald G. Horton Date: 7-7-93
Donald G. Horton
Director
Office of Quality Assurance

1.0 EXECUTIVE SUMMARY

This surveillance of the United States Geological Survey (USGS) calibration and control of measuring and test equipment was conducted at the Nevada Test Site (NTS) on June 29, 1993, as a follow-up to Yucca Mountain Quality Assurance Division (YMQAD) Audit YMP-93-10. During the surveillance, effectiveness of implementation of USGS Quality Assurance (QA) Program Element 12.0, "Control of Measuring and Test Equipment," was evaluated. Although one Corrective Action Request (CAR), YM-93-054, was issued to identify a procedural noncompliance, overall measures implemented for the control of measuring and test equipment were found to be effective. A description of CAR YM-93-054 is included in Paragraph 5.1 of this report and an information copy of the CAR is attached.

2.0 PURPOSE AND SCOPE

Surveillance YMP-SR-93-026 was conducted at the NTS as a follow-up to YMQAD Audit YMP-93-10, to complete the determination of effectiveness for USGS QA Program Element 12.0.

3.0 SURVEILLANCE TEAM

Charles C. Warren, Surveillance Team Leader, YMQAD

4.0 PERSONNEL CONTACTED DURING THE SURVEILLANCE

M. Bucher, Saturated Zone Lead, USGS
T. Chaney, Quality Assurance Manager, USGS
E. Gutentag, Hydrologist, USGS
M. Pabst, Quality Assurance Specialist, USGS
W. Rodman, Quality Assurance Specialist, USGS
J. Watson, Quality Assurance Specialist, USGS
J. Woolverton, Quality Assurance Specialist, USGS

5.0 SURVEILLANCE RESULTS

During the surveillance, a sample of nine instruments shown as active in the USGS "Calibration Record for Calibration Status" were selected for evaluation. This evaluation included a review of specific calibration procedures; traceability of calibration standards to the National Institute of Standards and Technology; documentation of calibration results; and identification markings and calibration status stickers attached to equipment. With exception of the condition adverse to quality documented on CAR YM-93-054, the results of the evaluation indicated that the USGS

is effectively implementing QA Program Element 12.0. The instruments selected for evaluation from the USGS "Calibration Record for Calibration Status" are listed in Paragraph 5.2 of this report.

5.1 CAR YM-93-054

USGS technical procedure NWM-USGS-HP-23 reviewed during the surveillance, requires that calibration data be entered into a notebook or other organized documentation and signed and dated. Contrary to this requirement, calibration data for pH meters and specific conductance meters calibrated in accordance with technical procedure NWM-USGS-HP-23, were not entered into a notebook or in other organized documentation.

5.2 Instruments Selected for Evaluation

<u>Instrument</u>	<u>ID Number</u>	<u>Technical Procedure</u>
Datalogger	21x7025	NWM-USGS-HP-257, R0
Temp/Humidity Probe	304	NWM-USGS-HP-175, R2-M1
Air Velocity Transducer	93010088	NWM-USGS-HP-175, R2-M1
Humidity-Temp Transmitter	28253	NWM-USGS-HP-229, R2
Thermometer	PTL3114	NWM-USGS-HP-229, R2
pH Meter	4318	NWM-HP-23, R3
Conductance Meter	76014	NWM-HP-23, R3
pH Meter	950778	NWM-HP-23, R3
Conductance Meter	960266	NWM-HP-23, R3

6.0 RECOMMENDATIONS

None.

7.0 ATTACHMENTS

Attachment 1: Information Copy of CAR YM-93-054

ATTACHMENT 1

INFORMATION COPY OF CAR YM-93-054

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.		8 CAR NO.: <u>YM-93-054</u> DATE: <u>06/30/93</u> SHEET: <u>1</u> OF <u>1</u> QA
CORRECTIVE ACTION REQUEST		
1 Controlling Document NMN-USGS-RP-23, Revision 3		2 Related Report No. YMP-SR-93-026
3 Responsible Organization USGS	4 Discussed With W. Rodman/T. Chaney	
5 Requirement: "5.3 Calibration Records: In compliance with YMP-USGS-QAP-12.01, calibration data will be entered, signed and dated, into a notebook or other organized documentation."		
6 Adverse Condition: Contrary to this requirement, calibration data for pH meters and specific conductance meters calibrated in accordance with this procedure, have not been entered into a notebook or other organized documentation, nor signed or dated. No documented evidence of performance of these calibrations could be provided during YMQAD Surveillance YMP-SR-93-026.		
9 Does a significant condition adverse to quality exist? Yes ___ No <u>X</u> If Yes, Circle One: A B C	10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Circle One: A B C D	11 Response Due Date: 20 Working Days from Issuance
12 Required Actions: <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input type="checkbox"/> Root Cause Determination		
13 Recommended Actions: 1) Perform remedial action to correct condition adverse to quality (CAQ). 2) Investigate to determine the extent of the CAQ. 3) After determining extent of CAQ, take necessary corrective action to preclude recurrence.		
7 Initiator <u>Charles C. Warren</u> Charles C. Warren Date <u>6-30-93</u>	14 Issuance Approved by: <u>[Signature]</u> QADD <u>[Signature]</u> for L. Date <u>07/01/93</u>	
15 Response Accepted QAR _____ Date _____	16 Response Accepted QADD _____ Date _____	
17 Amended Response Accepted QAR _____ Date _____	18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR _____ Date _____	20 Closure Approved by: QADD _____ Date _____	