

KH/OBS 91-S9 USGS

JUL 10 1991

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Mr. Dwight E. Shelor, Acting Associate Director
for Systems and Compliance
Office of Civilian Radioactive Waste Management
U.S. Department of Energy, RW 30
Washington, D.C. 20585

Dear Mr. Shelor:

SUBJECT: OBSERVATION REPORT NO. 91-S6 ON QUALITY ASSURANCE SURVEILLANCE
YMP-SR-91-020 OF THE UNITED STATES GEOLOGICAL SURVEY

I am transmitting the U.S. Nuclear Regulatory Commission (NRC) Surveillance Observation Report No. 91-S6 for the U.S. Department of Energy (DOE)/YUCCA Mountain Site Characterization Project Office (YMPO) Quality Assurance (QA) Surveillance No. YMP-SR-91-020 of the United States Geological Survey (USGS) QA program conducted at the Yucca Mountain Site on June 12 and 13, 1991. A member of the NRC staff participated as an observer on this surveillance.

The NRC staff observed and evaluated the DOE/YMPO QA surveillance to gain confidence that DOE and USGS are properly implementing the requirements of their QA programs by assessing the effectiveness of the DOE/YMPO surveillance and determining the adequacy of the USGS QA program in the areas surveilled. The staff's evaluation is based on direct observations of the surveillance process, discussions with the DOE/YMPO auditors and USGS staff, and reviews of pertinent USGS records.

The scope of this surveillance was limited to procedural implementation. No assessment of technical adequacy and qualification of any of the technical documents (technical procedures and laboratory and/or field data) was made during the surveillance.

The staff observer found the DOE/YMPO surveillance of the USGS QA program useful and effective. The auditors were well prepared and were familiar with the USGS QA Program Plan and the relevant QA procedures being implemented. The surveillance was well prepared and conducted in determining the adequacy of procedural controls and status of procedural implementation of the USGS QA program under the Code of Federal Regulations Title 10 Part 50, Appendix B, Criterion 12, "Control of Measuring and Test Equipment."


The NRC staff agrees with the DOE/YMPO auditors' preliminary conclusion that the USGS QA program provides adequate procedural controls and procedural implementation under the criteria surveilled.

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If you have any questions concerning this report, please contact
Kenneth Hooks of my staff at (301)/FTS 492-0447.

Sincerely,

(Original Signed by )

for






John J. Linehan, Acting Director
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Office of Nuclear Material Safety
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Enclosure: As Stated

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SURVEILLANCE OBSERVATION REPORT NO. 91-S6

1.0 INTRODUCTION

The United States Geological Survey (USGS), a participant in the Yucca Mountain Site Characterization Project (YMP), is responsible for conducting geologic, geophysical, hydrologic, and seismologic investigations in support of the U.S. Department of Energy's (DOE) waste management and site characterization activities for the YMP. The investigations are ongoing at the Nevada Test Site and the USGS offices in Denver, Colorado; Menlo Park, California; and Las Vegas, Nevada.

On June 12 and 13, 1991, the DOE/Yucca Mountain Site Characterization Project Office (YMPO) conducted a quality assurance (QA) surveillance (YMP-SE-91-020) of the USGS YMP QA program at the Yucca Mountain Site. This surveillance was conducted in accordance with the YMPO Quality Management Procedure (QMP)-18-02, Revision 2, "Surveillance." A member of the U.S. Nuclear Regulatory Commission (NRC) staff participated in the surveillance as an observer. This report documents the staff's assessment of the effectiveness of the DOE/YMPO surveillance, the adequacy of the USGS QA program procedural controls, and procedural implementation under Criterion 12 of the Code of Federal Regulations Title 10, Part 50, Appendix B.

2.0 PURPOSE

This DOE/YMPO surveillance evaluated the adequacy of procedural controls and their implementation under selected program elements of the USGS QA program. The staff's purpose in observing this surveillance was to gain confidence that the DOE and its contractors are properly implementing the requirements of their QA programs by assessing the effectiveness of the DOE/YMPO surveillance and determining the adequacy of the USGS QA program in the areas surveilled.

3.0 SCOPE

The DOE/YMPO auditors selected Criterion 12, "Control of Measuring and Test Equipment" from the USGS QA Program Plan (QAPP) for review and assessment of adequacy of procedural controls and procedural implementation. The specific area reviewed was the control and use of measurement and test equipment. The scope of this surveillance did not include any review of the technical adequacy and qualification of technical products and activities such as technical procedures, laboratory notebooks and data, or field notebooks and data.

4.0 SURVEILLANCE PARTICIPANTS

DOE/YMPO

John Martin, Science Application International Corporation
Charlie Warren, Management Analysis Corporation Technology

NRC

John W. Gilray, Observer

5.0 SURVEILLANCE SUMMARY RESULTS

The DOE/YMPO auditors reviewed a number of USGS procedures used in taking scientific measurements associated with sub-surface moisture content, wind speed, seismic activity, temperature, and relative humidity to identify QA requirements. In addition, the auditors visited four remote measurement locations at the Yucca Mountain site and evaluated the calibration process and records of the measurement instrumentation to determine acceptability of compliance with these procedures.

The surveillance was based on requirements in the following USGS Quality Assurance Technical Procedures: HP-60,R1 - "Method for Monitoring Water-Level Changes Using Pressure Transducers," HP-62,R5 - "Method for Measuring Sub-Surface Moisture Content Using a Neutron Moisture Meter;" HP-96,R0 - "Measurement of Wind Speed Using a Met-1 Model 014AS," HP-97,R0 - "Measurement of Temperature and Relative Humidity Using a Campbell Scientific, Inc. 207 Temperature and Relative Humidity Probe," HP-160,R1 - "Methods of Analysis of Samples for Gas Composition by Gas Chromatography," HP-168,R0 - "Measurement of Energy Flux Density by a Pyranometer," HP-170,R1 - "Method for Measuring Temperature Using a Campbell Scientific, Inc. 107 Temperature Probes;" and SP-11,R2 - "Operation and Calibration of Remote Telemetered Seismic Array."

The auditors concluded that the procedural controls under Criterion 12 are generally adequate and their procedural implementation is satisfactory. No adverse procedural or implementation deficiencies were identified.

6.0 CONTACTED DURING THE SURVEILLANCE

Dee E. Overturf, Technical Manager, USGS
James R. Brooks, Technician, USGS
William J. Davies, Technician, USGS
Michelle Baucher, QA Specialist, USGS
Tracy Mendez Vigo, QA Specialist, USGS
Ken W. Causseaux, Sr. QA Specialist, USGS

7.0 NRC CONCLUSIONS

The staff observer found the DOE/YMPO surveillance of the USGS QA program useful and effective. The DOE/YMPO auditors were well prepared and were familiar with the USGS QAPP requirements and relevant implementing procedures for the areas surveilled. The surveillance plan for this surveillance was thought-out and used in determining the adequacy of procedural controls under Criterion 12. The auditors were thorough and professional in conducting the surveillance and asked substantial questions to gain information required to demonstrate adequacy of implementation.

In general, the USGS personnel were cooperative, and retrievability of documentation requested by the auditors was generally very good.

The NRC staff agrees with the DOE/YMPO auditor's preliminary conclusions that the USGS QA program provides adequate procedural controls and that the procedural implementation covered by this surveillance is also adequate.