



Department of Energy

Washington, DC 20585

QA: L

JUN 12 1997

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Characterization Project
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ISSUANCE OF SURVEILLANCE RECORD M&O-SR-97-025 RESULTING FROM THE OFFICE OF QUALITY ASSURANCE (OQA) SURVEILLANCE OF THE CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING CONTRACTOR (CRWMS M&O)

Enclosed is the record of Surveillance M&O-SR-97-025 conducted by the OQA at the University of Nevada, Reno (UNR) facility in Reno, Nevada.

The purpose of the surveillance was to verify that the transfer of the Seismic Network operated by the UNR from the U.S. Geological Survey to CRWMS M&O has been properly implemented.

Due to the lack of adequate CRWMS M&O management and control of the transition activities, a Deficiency Report (DR) YM-97-D-042 was issued to the CRWMS M&O/UNR as a result of this surveillance. Response to the DR, which was submitted via separate letter, is due by the date indicated in Block 12.

This surveillance is considered completed and closed as of the date of this letter. A response to this surveillance record and any documented recommendations is not required; however, the open DR will continue to be tracked until it is closed to the satisfaction of the Quality Assurance Representative and the Director, OQA.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or Daniel A. Klimas at (702) 734-0853.

James Blaylock for
Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-1561

Enclosure:

Surveillance Record M&O-SR-97-025



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

Surveillance No. M&O-SR-97-025

QUALITY ASSURANCE SURVEILLANCE RECORD**SURVEILLANCE DATA**

1. ORGANIZATION/LOCATION: CRWMS M&O / UNR	2. SUBJECT: Transfer of the Seismic Network Operated by UNR from the USGS To CRWMS M&O	3. DATE: 04/20/97
4. SURVEILLANCE OBJECTIVE: Evaluate the transition of responsibilities and activities from USGS to UNR relative to the Quality Assurance requirements.		
5. SURVEILLANCE SCOPE: Quality Assurance Transition Plan BAA000000-0717-4600-00001, Revision 1, dated December 13, 1996.		6. SURVEILLANCE TEAM: Team Leader: Daniel A. Klimas Additional Team Members: Stephen D. Harris
7. PREPARED BY:  Daniel A. Klimas Surveillance Team Leader		8. CONCURRENCE: Donald G. Horton Director, OQA
Date <u>4/1/97</u>		Date _____

SURVEILLANCE RESULTS**9. BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:**


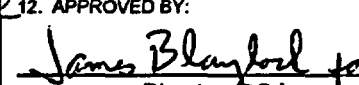
A surveillance was conducted April 29-30, 1997, relative to the transition of the Seismic Network operated by the UNR from the U.S. Geological Survey (USGS) to the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O). A close-out meeting was held April 30, 1997, at the University of Nevada (UNR), in Reno, Nevada with management representatives from the UNR and CRWMS M&O to discuss the results of the surveillance. The surveillance consisted of personnel interviews and examination of documentation related to the transition of the Seismic Network operations and implementation of those activities under the Office of Civilian Radioactive Waste Management (OCRWM) Quality Assurance (QA) Program.

The purpose of the transition plan is to describe the QA activities related to operation of the Seismic Monitoring Network at and surrounding Yucca Mountain by the CRWMS M&O. The Seismic Network has been operated for the USGS by the UNR Seismological Laboratory (UNRSL). UNRSL will continue to operate the network for the CRWMS M&O with the same equipment and personnel. The transition plan describes the requirements for the transfer of the QA program from the USGS to the CRWMS M&O. The transition includes schedules for the transition of the responsibility for training, personnel records, procedures, scientific notebooks, outstanding deficiencies, procurement, and calibration.

See Page 2**10. SURVEILLANCE CONCLUSIONS:**

Based upon the results of this surveillance, it was determined that not all actions required by the CRWMS M&O transition plan, document #BAA000000-01717-4600-00001, have been completed as required. Due to the absence of adequate CRWMS M&O direction and control of the transition activities, a Deficiency Report (DR) was issued to the CRWMS M&O and UNR as a result which identifies five areas of noncompliance. In addition, there are two recommendations provided for consideration. The implementation of the transition plan and transfer of the Seismic Network activities operated by the UNR from the USGS to the CRWMS M&O is incomplete at this time.

See Page 3

11. COMPLETED BY:  Daniel A. Klimas Surveillance Team Leader	12. APPROVED BY:  James Blayford Director, OQA
Date <u>5/13/97</u>	Date <u>6/10/97</u>

Block 9 (continued) BASIS FOR EVALUATION/DESCRIPTION OF OBSERVATIONS:

The scope of work covered in this transition plan is described in Work Breakdown Structure (WBS) Element 1.2.3.2.8.4.1 and conducted in accordance with study plan title, "Historical and Current Seismicity", study plan number 8.3.1.17.4.1. The overall objectives of this WBS element are to provide information on the seismicity rates in the Southern Great Basin; orientation, depth, and style of regional faulting; identification of specific seismogenic features; and how seismic wave spectral amplitudes scale with earthquake magnitude and stress drop and attenuate with distance in the region. The approach to accomplishing these objectives is to assemble information on historical seismicity and to monitor current seismicity using a regional telemetered network of seismographs. The regional network is supplemented as needed with other permanent and portable equipment including accelerometers and seismometers.

In FY 1995 and earlier, seismic data from an analog network of stations formed the basis for scientific investigations. During that time, an upgrade of the network from analog stations to digital stations was begun and data from both types of stations were collected and used. Beginning in FY 96, data from the upgraded digital network will be the primary data set for investigations. Analog stations will continue to operate, but will not be maintained within the QA program and thus their data will not be qualified. Seismic arrival time data from the analog stations will continue to be analyzed, as appropriate, but will provide only corroborative information.

Products derived from the historical information and the raw data produced by the instrumentation just described will include: Seismographs, ground motion amplitude spectra, earthquake catalogs, epicenter maps, vertical sections, focal mechanisms, seismic moments and stress drops, velocity models, attenuation relationships, and relationships of seismicity to regional tectonics and volcanism.

Section 10 provides the overall evaluation and results of the transition of the seismic network activities by UNR from the USGS to the CRWMS M&O. Additionally, a synopsis of the deficiencies identified and recommendations generated as a result of the surveillance are detailed.

PERSONNEL CONTACTED:

NAME:	ORGANIZATION:
David Von Seggern	UNR
James Brune	UNR
Ken Smith	UNR
Glenn Biasi	UNR
Wally Nicks	UNR
Nancy Stennis	UNR
Darrell Porter	CRWMS M&O/SAIC
Fred Arth	CRWMS M&O

Block 10 (continued) SURVEILLANCE CONCLUSIONS:

As noted, the DR consists of five separate deficiencies. The five deficiencies were included in one DR due to their relationship to the transfer of the Seismic Network operated by the UNR from the USGS to the CRWMS M&O and the transition plan requirements. A synopsis of each deficient condition as a result of the surveillance is as follows:

1. Training records did not contain the Activity Evaluation for any of the UNR staff; self study records were not found for Rasool Anooshehpour and Walter Nicks; Resumes were not found for Glenn Biasi, Brant Wilhelm and Nancy Stennis. Verification of education and experience was not complete for Gordon Shields, Ken Smith, Walter Nicks, Arthur Aburto, Brant Wilhelm and John Torrisi. No training records were available for Diane Depolo.
2. UNR Scientific Notebooks had several anomalies and are not in compliance with the CRWMS M&O procedure QAP-SIII-3, Revision 1, for Scientific Notebooks.
3. The procurement of calibration services for Voltmeters used for performing calibration checks on the seismic monitoring equipment was not conducted in accordance with the CRWMS M&O procedure QAP-7-0, Procurement Control Process.
4. Records of tapes for seismic activity data are not being stored in a 1-hour fire rated facility or cabinet or provided dual storage.
5. The requirements for the control of electronic management of data (i.e. electronic data from seismic stations) is not proceduralized.

RECOMMENDATIONS:

1. UNR should consider development of a system to inform the staff working on the Yucca Mountain Project when a procedure is changed and needs to be read. Controlled copies of the procedures are being sent to the UNR; however, sometimes the need for reading/training by the staff is not being passed along.
2. The Yucca Mountain Project QA process is not always understood at first reading or presentation. It is recommended that the CRWMS M&O spend some time discussing various procedural processes with the responsible UNR staff to make certain they understand and can implement their required processes as desired and intended by the authors of the procedures.