



Department of Energy

Washington, DC 20585

QA: L

JUN 20 1997

L. D. Foust, Technical Project Officer
for Yucca Mountain Site
Characterization Project
TRW Environmental Safety Systems, Inc.
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Las Vegas, NV 89134

ISSUANCE OF SURVEILLANCE RECORD SNL-SR-97-032 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 Quality Assurance Surveillance Record SNL-SR-97-032 conducted by the OQA at Sandia National Laboratories (SNL) Exploratory Studies Facility on May 19, 1997.

The purpose of the surveillance was to verify compliance with SNL Technical Procedure (TP) 239, Revision 1, "Installation of Extensometers."

There was one Performance Report (PR) concerning conflicting requirements for extensometer installation in TP-239 issued as a result of the surveillance. Response to the PR, which was transmitted 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 is not required; however, the open PR 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 Kenneth T. McFall at (702) 794-5470.

102.7

Handwritten notes: //, NH 33, WM-11

Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-1742

Enclosure:
Surveillance Record SNL-SR-97-032

Recip: NMSS/HWR



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PDR WASTE
WM-11 PDR

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Surveillance No. SNL-SR-97-032

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

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

1. ORGANIZATION/LOCATION: Sandia National Laboratories (SNL)/Exploratory Studies Facility (ESF)	2. SUBJECT: Single and Multi-Point Borehole Extensometer (SPBX) and (MPBX) Installation	3. DATE: May 19, 1997
4. SURVEILLANCE OBJECTIVE: Verify compliance with SNL Technical Procedure (TP)-239, Revision 1, "Installation of Extensometers"		
5. SURVEILLANCE SCOPE: Verify compliance with TP-239 in Alcove 7 in the ESF		6. SURVEILLANCE TEAM: Team Leader: Kenneth T. McFall Additional Team Members: N/A
7. PREPARED BY:  Kenneth T. McFall Surveillance Team Leader	8. CONCURRENCE: Donald G. Horton Director, OQA	5/13/97 Date

SURVEILLANCE RESULTS

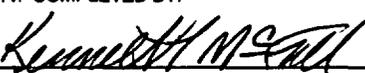
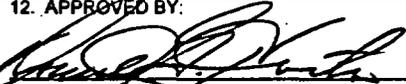
9. BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS

Surveillance SNL-SR 97-032 was conducted on May 19, 21, and 28 in the ESF and SNL's facilities at the Yucca Mountain Site. The intent of the surveillance was to verify compliance with SNL TP-239, Revision 1, "Installation of Extensometers" in Alcove 7 in the ESF. Installation of SPBXs and MPBXs is part of Work Breakdown Structure 1.2.3.2.7.3.4, "Design Verification". The SPBXs and MPBXs are installed and monitored to determine movement in the rocks around a specific area in the ESF. The following requirements from TP-239 were reviewed for compliance during the surveillance:

Paragraph 7.1, Preparation for Installation
Principal Investigator (PI) acceptance and instructions for any deviations will be logged on the station as-built documents

The PI had not signed off on the AS-Built Documentation as of the final date of the surveillance, however, there were no deviations which required PI acceptance.

See Pages 2 and 3

10. SURVEILLANCE CONCLUSIONS: Based on examination of objective evidence and interviews with personnel, it was determined that the installation of the SPBX and MPBX were considered to be satisfactory. YM-97-P-011 was generated as a result of instructional conflict within procedure TP-239 and concerns the inflation pressures of the extensometer anchors.		
11. COMPLETED BY:  Surveillance Team Leader	12. APPROVED BY:  Director, OQA	6/17/97 Date

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

Paragraph 7.1, Equipment and Material

Calibrated digital multimeter

Hydrologic hand pump with calibrated pressure gage

Calibrated extensometer head and transducers

Multimeter

Manufacturer: Data Precision
Serial number: 008200 (936)
Last calibration: 4/22/96
Next cal. Due: 4/22/97
Date of use: 11/5/96
Calibrated by: EG&G Energy Measurements
Status: Passed

Hydrologic hand pump pressure gage

Manufacturer: Ashcroft
Serial number: SNL SN015
Last calibration: 2/18/97
Next cal. Due: 2/18/98
Date of use: 5/19/97
Calibrated by: Bechtel Nevada
Status: Passed

Extensometer head and transducers

The extensometer head and transducer are assembled and calibrated prior to installation. After installation the instrumentation is not available for calibration.

Extensometer head temperature gage

	<u>Date</u>	<u>Calibrated by</u>	<u>Status</u>
1423 MPBX	8/3/96	Geokon	Passed
1436 SPBX	8/3/96	Geokon	Passed
1437 SPBX	8/3/96	Geokon	Passed

Transducer

	<u>Date</u>	<u>Calibrated by</u>	<u>Status</u>
10061 SPBX	9/26/96	Geokon	Passed
10062 SPBX	9/26/96	Geokon	Passed
10064 MPBX (part)	9/26/96	Geokon	Passed
10065 MPBX (part)	9/26/96	Geokon	Passed
10066 MPBX (part)	9/26/96	Geokon	Passed

Paragraph 7.2, Installation

Installation instruction from the vendor will be used to install or to assemble MPBX and SPBX.

Paragraph 7.2.11,

Attach the anchor inflation line from the deepest anchor to a hydrologic pump with a calibrated pressure gage. Set the anchor by applying hydrologic pressure between 900 and 1500 PSI.

The manufacturer's (Geokon) instructions were followed during the installation of the SPBXs and the MPBX with the exception of the hydrologic inflation pressure applied to the anchors. The manufacturer's

instructions call for inflation pressures of at least 1400 psi; while the procedure TP-239 calls for pressures between 900 and 1500 psi. The actual inflation pressures were between 1080 and 1220 psi. The technician installing the extensometers was placed in the position of violating Paragraph 7.2 or violating Paragraph 7.2.11 which have contradictory instructions. The technician followed Paragraph 7.2.11 for the inflation of all the anchors. This instructional conflict resulted in the generation of Performance Report SNL-97-P011.

PERSONNEL CONTACTED DURING SURVEILLANCE:

Ronnie S. Taylor, SNL, Member of the Technical Staff