

2/1/90



# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO.: 20-3704-030

REPORT NO.: 90-011

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**SURVEILLANCE SCOPE:**

Follow-up for Audit 90-02 and Witnessing of a Tri-Axial Test of a CNWRA Sample

REFERENCE DOCUMENTS: Quality Assurance Program, Mechanical Characterization of Tuff

STARTING DATE: 9/12/90

ENDING DATE: 9/12/90

QA REPRESENTATIVE: R. D. Brient *RDB*

**PERSONS CONDUCTING TEST / EXAM / ACTIVITY:**

University of Arizona: Dr. P. Kulatilake - P.I., Robert Armstrong - Lead Technician,  
F. Abdullitif - Technician, Dr. J. M. McCray - Independent Surveillance

**SATISFACTORY FINDINGS:**

SEE ATTACHMENT (Page 2 of 2)

UNSATISFACTORY FINDINGS: **None**

NONCONFORMANCE REPORT NO.:

ATTACHMENTS:

RECOMMENDATIONS / ACTIONS

Due to the change of Principal Investigator, the QA Program needs to be revised.

This was discussed with P.I. Dr. Kulatilake during the surveillance activity.

APPROVED: *[Signature]*

CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 9/17/90

**DISTRIBUTION:**

ORIGINAL - CENTER QA DIRECTOR  
ORIGINATOR *R. Brient*  
PRINCIPAL ENGINEER  
ELEMENT MANAGER *Chowdhury*  
P. Nair, J. Russell, J. Latz

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CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES  
QUALITY ASSURANCE  
SURVEILLANCE REPORT

SATISFACTORY FINDINGS:

- A. The tri-axial test of sample SRM 17.2.3 T-1 was witnessed. Dr. J. McCray was also performing independent surveillance of this test, and verified compliance to the test procedure (attachment A.2 of the QA Program). Verification by this witness included:
1. Test equipment, including pressure and load gages, load cells, and controllers, was properly calibrated and labeled.
  2. The qualifications of test personnel was properly documented.
  3. Test data and the test equipment used was properly recorded on appropriate forms and calculations were performed by the test technician immediately following the test.

No deviations from the test procedure or QA Program were observed.

- B. The scope of this surveillance included evaluations of activities associated with Center Audit 90-02 checklist items that were classified as "follow-up" in the audit report. At the time of the audit in June, 1990, no testing had taken place, so the implementation of several controls over the testing activities were not sufficiently evaluated to determine their effectiveness. At the time of this surveillance approximately 20% of the tests have been completed and sufficient records were available for review to determine that implementation was effective in the following areas:
1. Identification of test equipment used in test reports.
  2. Control of records, including test reports, calibration records, and personnel qualification records. Transmittal of the first batch of test reports to the Center is expected soon. No computer data acquisition or records are anticipated.
  3. Data reduction (calculations) and test data reviews were performed as specified.
  4. Redundant data collection was provided for uniaxial tests by utilizing the load cell and chart recorder in addition to the primary data source from the load gages.
  5. To date, no nonconformances or corrective action requirements have been identified, and controls appear to be sufficient.

In conclusion, the QA Program appears to be effectively implemented based on this surveillance and the results of Audit 90-02.