



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO.: 20-5704-034

REPORT NO.: 94-11

PAGE 1 OF 2

SURVEILLANCE SCOPE: Review of Setup and Testing of Uniaxial Compression Tests

REFERENCE DOCUMENTS: ASTM D 2938-79

STARTING DATE: October 14, 1994

ENDING DATE: November 3, 1994

QA REPRESENTATIVE: Randy Folck

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: Andrew Nagy, Mark Griffin, Simon Hsiung

SATISFACTORY FINDINGS:

1. The laboratory apparatus and experimental methods were reviewed with the technician. Calibration requirements and test instrumentation was discussed. Samples were appropriately marked and segregated. Test instruments were calibrated and labeled as required, (See page 2 of 2).
2. Scientific notebook No. 064 was reviewed and found to comply with QAP-001 requirements. An exception to an ASTM procedural step was documented in the notebook as required. Calculations performed by the signal conversion software, Vu-Point II, Version 2.0, were verified by hand calculations as required by QAP-014, (See Attachment 1).
3. Both technician (Mark Griffin) and scientist (Andrew Nagy) had received SwRI Nuclear Quality Assurance Program Manual training on November 29, 1989. Andrew Nagy had received CNWRA indoctrination on September 19, 1994 and was certified under the CNWRA September 9, 1994.

UNSATISFACTORY FINDINGS: none

NONCONFORMANCE REPORT NO.: none

ATTACHMENTS: Duplicate hand calculations for Vu-Point II.

RECOMMENDATIONS/ACTIONS:

1. Document qualification and training of non-CNWRA technicians used for testing activities, i.e Division 06, 04, etc. Existing Division Nuclear Project Operating Procedures may be used for this activity.
2. Ensure raw data is captured and included with the appropriate scientific notebook.

APPROVED: *Simon Hsiung*
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 11/4/94

DISTRIBUTION:

ORIGINAL - CENTER QA DIRECTOR
ORIGINATOR
PRINCIPAL INVESTIGATOR - S. Hsiung
ELEMENT MANAGER - B. Sagar

*A. Chowdhury, P. Nair, R. Boca, R. Brient
A. Nagy/ob*

Equipment Calibration Verification:

Name	Serial Number	Date calibrated	Calibrated by
22 kip load cell	1127	10/14/94	SwRI
Amplifier	1414	10/14/94	SwRI
Frame	#1	10/14/94	SwRI
Morehouse Proving Ring	811	1/08/94	National STD Testing Lab
Micrometer	#4	10/18/94	SwRI
Caliper	#1-6	06/07/94	

Surveillance Report 94-11
Attachment 1

Sheet1

	LOAD RAW	STRESS SCALE	HAND: CALC.	VU-POINT CALC.	
TIME	VOLTAGE	FACTOR	STRESS	STRESS	ERROR
(s)	(v)	(psi/v)	(psi)	(psi)	(%)
T0	0	633.11	0	0	0
T1	100	633.11	438.97	438.97	0
T2	200	633.11	1163.85	1163.85	0
T3	300	633.11	1844.47	1844.47	0

	DISP RAW	STRAIN SCALE	HAND CALC.	VU-POINT CALC.	
TIME	VOLTAGE	FACTOR	STRAIN	STRAIN	ERROR
(s)	(v)	(in/in/v)	(in/in)	(in/in)	(%)
T0	0	0.01241	0	0	0
T1	100	0.01241	0.00137	0.00137	0
T2	200	0.01241	0.00278	0.00278	0
T3	300	0.01241	0.00421	0.00421	0

TABLE 1