



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO: 20.06002.01.031

REPORT NO: 2004-17

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SURVEILLANCE SCOPE: Development and control of scientific and engineering software

REFERENCE DOCUMENTS: TOP-018, Development and Control of Scientific and Engineering Software
AP-014, Computer Network Access and Usage

STARTING DATE: August 23, 2004

ENDING DATE: September 30, 2004

QA REPRESENTATIVE: R. Folck *Randy Folck 7 Oct 2004*

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: M. Juckett, B. Dasgupta, N. Franklin, R. Janetzke, G. Adams, S. Painter, B. Winfrey, P. Seely

SATISFACTORY FINDINGS:

- Software development activities and documentation were found to be in accordance with applicable requirements of TOP-018 for following software: PHREEQC, V.2.8, SAPHIRE, V.6.8, DCM PACKAGE, V.1.0, 3DStress, V.3.0, PCSA TOOL, V.3.0.0, Tephra, V.1.0, Surfer, V.8.0, GM-SYS, V.4.8.45B, EarthVision, V.7.5.
- CNWRA MIS staff successfully installed the QA record copy of the following scientific and engineering software: MELCOR, V.1.8.5, EQ 3/6, V7.2.B, PVHA_YM, V.2.
- Actions to address Corrective Action Request 2004-1 are complete except for validation of MCNP4C2. MCNP4C2 will be validated once the software is re-installed on the target platform by IMS.

UNSATISFACTORY FINDINGS: None

NONCONFORMANCE REPORT NO: N/A

ATTACHMENTS: None

RECOMMENDATIONS/ACTIONS:

- Consider updating Software Development Plans for TPA and for PCSA TOOL to better reflect a software maintenance lifecycle.
- It is unclear whether AP-014 applies to source code that is acquired and controlled under TOP-018, e.g., Tephra. Consider updating AP-014 to clearly define the controls applied to freeware, shareware and commercial-off-the-shelf software. Also consider updating AP-014 to describe the process to resolve licensing issues.

APPROVED: *[Signature]*
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: *10/2/2004*

DISTRIBUTION:

ORIGINAL - CENTER QA DIRECTOR/ QA RECORDS
ORIGINATOR - R. Folck
PRINCIPAL INVESTIGATORS *[Signature]*
ELEMENT MANAGERS
TECHNICAL & ADMINISTRATIVE DIRECTORS
M. Ehnstrom