



**GEOSCIENCES AND ENGINEERING DIVISION  
QUALITY ASSURANCE  
SURVEILLANCE REPORT**

PROJECT  
NO.:06002.01.161, 352 and  
.354, 361 and 367, and 410

REPORT No.: 2006-13

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**SURVEILLANCE SCOPE:** Performance Assessment Element Activities

**REFERENCE DOCUMENTS:** AP-001, Evaluation of Potential for Conflict of Interest; QAP-001, Scientific Notebook Control; QAP-004, Surveillance Control; QAP-005, Quality Indoctrination and Training; QAP-007, Professional Personnel Qualification; QAP-013, Quality Planning; and TOP-018, Development and Control of Scientific and Engineering Software

**START DATE:** 06/23/2006

**END DATE** 07/12/2006

**QA REPRESENTATIVE:**  
Mark R. Ehnstrom

**PERSONS CONDUCTING ACTIVITY:** J. Winterle, J. Janetzke, R. Benke, O. Pensado, M. Junkett, J. Durham, and O. Osidele

**SATISFACTORY FINDINGS:** The Performance Assessment (PA) organization manages the following Integrated Subissues (ISIs) evaluated during the surveillance: Public Outreach, Methodology and Overall System Performance Assessment, Redistribution of Radionuclides in Soil, Biosphere Characterization, and Support Regulatory Framework. Quality Requirements Application Matrixes (GRAM's) for the ISIs were reviewed for applicability and current project activity. All issued GRAMs described current project activities.

#### **Public Outreach**

A brochure explaining 10 CFR Part 63 and NRC requirements during the review process is in final review. Public meetings have been attended by CNWRA personnel and future public meetings are planned.

#### **Methodology and Overall System Performance Assessment**

Total System Performance (TPA) code Version 5.1 Beta was issued in the spring of 2006. A validation plan is in preparation and validation test activities have been in progress since that time. Assignments and responsibilities have been determined for validation of each of the sub-routines or modules contained in the code. Results of the are recorded on a software validation test report form and sent to the Principal Investigator (PI). If any problems are discovered during this test process which would require a change to the code, a Software Change Request would be required. Once all the issues have been resolved, the Software Validation Test Report will be completed and the version 5.1 of the code will be issued.

#### **Redistribution of Radionuclides in Soil**

Onsite activity continues at Sunset Crater collecting airborne samples. A gas flow meter (serial no. 1098) , temperature probe (serial no. SNX 2020010), and a absolute pressure probe (serial no. 60999) were used in obtaining samples under controlled flow conditions. Each instrument was within its current calibration cycle. Current certification documentation for the instruments is located in the Electronic Library Facility(ELF). A document for the 2005 calibration of the flow meter was not in ELF. This document was given to the ELF coordinator

and will be placed in ELF.

No software, consultants, or contractors are used in Redistribution of Radionuclides in Soil activities. When site activity is completed and field notes are evaluated, pertinent data will be placed in scientific notebook 748E.

### Support Regulatory Framework

The draft revised Environmental Protection Agency standard for Yucca Mountain and the corresponding draft revised NRC 10 CFR Part 63 have completed public comment. Direction from the NRC will determine additional work activities for this ISI. Support Regulatory Framework does not use contractors or subcontractors, controlled software, and no scientific notebook is needed.

### Biosphere Characterization

Personnel are currently involved in writing and reviewing abstracts used to calculate dose from soil and water concentrations. The dose information is used in the TPA code and is evaluated against EPA standards. Dose calculations are performed by using a module of the TPA code, GEN-TPA. Work in Biosphere Characterization ISI contains no notebook entries and no contractors or consultants are being used.

Professional Personnel Qualification files were reviewed for those Geosciences and Engineering staff providing information during this surveillance. Additional non-Geosciences and Engineering personnel who contributed to the Methodology and Overall System Performance Assessment ISI activity included D. Steed, C. Scherer, J. Menchaca, R. Rice, and B. Goodwin. Reviews determined that the individuals had received the proper indoctrination and training into the quality assurance program, they had been evaluated for conflict of interest, and they had been provided training in procedures appropriate to their job activity.

UNSATISFACTORY FINDINGS: None

NCR NO.: N/A

CAR NO.: N/A

ATTACHMENTS: None

RECOMMENDATIONS/ACTIONS: None

APPROVED:



DATE:

1/21/2006

DISTRIBUTION:

ORIGINAL—QA RECORDS

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