

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT NO. YMP-92-12

OF

LOS ALAMOS NATIONAL LABORATORY

LOS ALAMOS, NEW MEXICO

MARCH 17 THROUGH 20, 1992

Prepared by:

Stephen R. Dana  
Stephen R. Dana  
Audit Team Leader  
Yucca Mountain Quality Assurance Division

Date:

2/10/92

Approved by:

Donald G. Horton  
Donald G. Horton  
Director  
Office of Quality Assurance

Date:

2/20/92

## 1.0 SCOPE

This limited scope audit will evaluate the Los Alamos National Laboratory (Los Alamos) Quality Assurance (QA) program to determine whether it meets the requirements and commitments imposed by the Office of Civilian Radioactive Waste Management (OCRWM). This will be done by verifying implementation and effectiveness of the system in place, as well as verifying compliance with requirements.

A representative sample of discrepancies identified during previous QA audits and surveillances of Los Alamos will be included in the scope of this audit to determine the effectiveness of Los Alamos corrective actions. The status of corrective action implementation concerning open Corrective Action Requests will also be reviewed.

The programmatic elements and technical areas to be audited, as well as those programmatic elements not included in this audit, are identified in Section 4.0 of this plan.

## 2.0 AUDIT SCHEDULE

Pre-Audit Team/Observer Meeting	8:30 am, March 17, 1992 Los Alamos, New Mexico
Pre-Audit Conference	9:00 am, March 17, 1992 Los Alamos, New Mexico
Audit Activities	10:00 to 4:00 pm, March 17, 1992  8:30 am to 4:00 pm, March 18 - 19, 1992
Post-Audit Conference	9:00 am, March 20, 1992 Los Alamos, New Mexico

There will be daily audit team/observer meetings starting at 4:15 p.m. and daily audit team/observer/Los Alamos meetings starting at 8:00 a.m. to discuss potential deficiencies and establish needed liaison.

### 3.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements to be audited will be contained in the programmatic checklists. These checklists will be developed from the latest revision of the following documents:

- o Los Alamos Quality Assurance Program Plan and implementing procedures
- o Los Alamos Software Quality Assurance Plan
- o Yucca Mountain Site Characterization Project Office Administrative Procedures - Quality

The conduct of the audit will be guided by the documents (latest revision) listed below:

- o Quality Assurance Administrative Procedure (QAAP) 18.2, Revision 5, "Audit Program"
- o QAAP 16.1, Revision 4, "Corrective Action Requests"
- o YMP Audit Observer Inquiry

### 4.0 ACTIVITIES TO BE AUDITED

#### Programmatic Elements

Los Alamos activities associated with the following QA Program elements will be audited:

- 3.0 Scientific Investigation Control (including Software Control)
- 5.0 Instructions, Procedures, Plans, and Drawings
- 6.0 Document Control
- 17.0 Records

Programmatic element 3.0, Design Control, was considered during development of this audit scope and determined to be not applicable since Los Alamos has no current activities for which this element applies.

#### Technical Areas

<u>WBS NUMBER</u>	<u>TITLE</u>
1.2.3.4.1.2.1 and 1.2.3.4.1.2.3	Batch Sorption Studies and Sorption Models
1.2.3.4.1.2.2	Biological Sorption and Transport

<u>WBS NUMBER</u>	<u>TITLE</u>
1.2.3.4.1.3	Radionuclide Retardation by Precipitation Processes
1.2.3.4.1.4	Radionuclide Retardation by Dispersive, Diffusive, and Advective Processes
1.2.3.4.1.5.1	Retardation Sensitivity Analysis

If the audit team identifies a need to verify additional programmatic or technical areas during the audit, they will be added to the audit checklists and verified accordingly.

#### 5.0 AUDIT TEAM MEMBERS

Stephen R. Dana, Science Applications International Corporation (SAIC)/YMQAD,  
Las Vegas, Nevada, Audit Team Leader  
Sandra D. Bates, SAIC/YMQAD, Las Vegas, Nevada, Auditor  
Paul L. Cloke, SAIC, Las Vegas, Nevada, Technical Specialist  
Neil D. Cox, SAIC/YMQAD, Las Vegas, Nevada, Auditor  
Gerard Heaney, SAIC/YMQAD, Las Vegas, Nevada, Auditor  
John S. Martin, SAIC/YMQAD, Las Vegas, Nevada, Auditor  
Ardyth M. Simmons, DOE/YMP, Las Vegas, Nevada, Technical Specialist