

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT LANL-ARP-97-01

OF THE

LOS ALAMOS NATIONAL LABORATORY

AT

LOS ALAMOS, NEW MEXICO

December 9-13, 1996

Prepared by: Donald J. Harris Date: 10-28-96
Donald J. Harris
Audit Team Leader
Yucca Mountain Quality Assurance

Approved by: James Blaylock for Date: 10/30/96
Donald G. Horton
Director
Office of Quality Assurance

1.0 SCOPE

This performance-based audit of Los Alamos National Laboratory (LANL) will be conducted by a team of auditors from Office of Quality Assurance (OQA). The audit will evaluate the effectiveness of implementation of Quality Assurance (QA) program requirements for the studies and products identified in Section 4.0 of this plan.

In addition, a review of the status of open Office of Civilian Radioactive Waste Management deficiency documents identified during previous audits or surveillances of LANL will be included in the scope of this audit to determine the status of corrective actions.

2.0 AUDIT SCHEDULE

The audited activities will include work being performed at LANL in Los Alamos, New Mexico and will be performed December 9-13, 1996.

Preaudit Team/Observer Meeting	8:30 a.m., December 9, 1996 Los Alamos, New Mexico
Preaudit Conference	9:15 a.m., December 9, 1996 Los Alamos, New Mexico
Audit Activities	10:00 a.m. to 4:00 p.m. December 9, 1996 Los Alamos, New Mexico
	8:00 a.m. to 4:00 p.m. December 10-12, 1996 Los Alamos, New Mexico
	8:00 a.m. to 12:00 p.m. December 13, 1996 Los Alamos, New Mexico
Postaudit Conference	1:00 p.m., December 13, 1996 Los Alamos, New Mexico

There will be a daily Audit Team Leader/Observer meeting at 4:00 p.m. to review audit progress. Beginning on Tuesday, December 10, 1996, there will also be a daily Audit Team Leader/Observer/LANL management meeting at 8:15 a.m., to communicate audit progress, 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 performance-based and technical checklists. These checklists will be developed from LANL's approved and issued QA program procedures, study plans, technical procedures, and the performance objectives established and agreed upon with LANL.

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

- Quality Assurance Procedure 18.2, "Internal Audit Program"
- Administrative Procedure (AP) 16.1Q, "Performance/Deficiency Reporting"
- AP 16.2Q, "Corrective Action and Stop Work"

4.0 ACTIVITIES TO BE AUDITED

The audit team will evaluate implementation of QA program requirements with regards to the studies and products associated with the Work Breakdown Structure (WBS) number listed below:

1.2.3.2.1.1.2 - Mineralogic and Geochemical Alteration

Specifically, the studies for WBS 1.2.3.2.1.1.2 and its associated products, will be evaluated for the critical process steps listed below.

1. Sample control
2. Data control
3. Analytical method
4. Software control
5. Model output
6. Data update and changes

A performance-based audit evaluates products and associated processes to determine the degree to which they meet program requirements, and management commitments and expectations. This evaluation of process effectiveness and product acceptability will be based upon:

- Satisfactory completion of the critical process steps
- Acceptable results and quality of the end product
- Documentation that substantiates quality of products
- Performance of trained and qualified personnel
- Implementation of applicable QA program elements

In addition, a sample of QA Program elements that directly relate to performance of critical process steps may be evaluated.

5.0 AUDIT TEAM MEMBERS

Donald J. Harris, OQA, Las Vegas, Nevada, Audit Team Leader

Daniel J. Tunney, OQA, Las Vegas, Nevada, Auditor

Stephen T. Nelson, CRWMS M&O, Las Vegas, Nevada, Technical Specialist

6.0 AUDIT CHECKLIST

The following checklists will be used during the audit:

LANL-ARP-97-01-01, Performance-based Checklist

LANL-ARP-97-01-02, Technical Checklist