

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

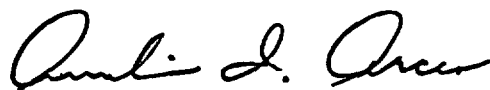
FOR AUDIT YMP-ARC-95-11


OF

LOS ALAMOS NATIONAL LABORATORY

LOS ALAMOS, NEW MEXICO

MAY 8 THROUGH 12, 1995

Prepared by:  Date: 3/28/95  
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Yucca Mountain Quality Assurance Division

Approved by:  Date: 3/28/95  
Donald G. Horton  
Director  
Office of Quality Assurance

## 1.0 SCOPE

This full scope audit, to be performed by a team of auditors from the Yucca Mountain Quality Assurance Division (YMQAD) will evaluate the Los Alamos National Laboratory (LANL) 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.

In addition to the follow-up on open Corrective Action Requests, a representative sample of deficiencies identified during previous QA audits and surveillances of LANL will be included in the scope of this audit to determine the effectiveness of LANL corrective actions.

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

## 2.0 AUDIT SCHEDULE

Pre-audit Team/Observer Meeting	8:30 a.m., May 8, 1995 Los Alamos, New Mexico
Pre-audit Conference	9:15 a.m., May 8, 1995 Los Alamos, New Mexico
Audit Activities	10:00 a.m. to 4:00 p.m. May 8, 1995 Los Alamos, New Mexico
	8:00 a.m. to 4:00 p.m. May 9-11, 1995
	8:00 a.m. to 11:45 a.m. May 12, 1995
Post-audit Conference	1:00 p.m., May 12, 1995 Los Alamos, New Mexico

There will be a daily YMQAD Audit Team/Observer meeting starting at 4:00 p.m. and also a daily Audit Team Leader (ATL)/Observer/LANL meeting starting 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 the programmatic and technical checklists. These checklists will be developed from the latest available revision of the following documents.

- LANL QA Program implementing procedures addressing the OCRWM Quality Assurance Requirements and Description Document (QARD), DOE/RW-0333P, as indicated in the Requirements Traceability Network matrix.
- Applicable Yucca Mountain Site Characterization Project Office Administrative Procedures - Quality.

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

- Quality Assurance Procedure (QAP) 18.2, "Audit Program"
- QAP 16.1, "Corrective Action"

### 4.0 ACTIVITIES TO BE AUDITED

#### Programmatic Elements

- 1.0 Organization
- 2.0 Quality Assurance Program
- 4.0 Procurement Document Control
- 5.0 Implementing Documents
- 6.0 Document Control
- 7.0 Control of Purchased Items and Services
- 12.0 Control of Measuring and Test Equipment
- 15.0 Nonconformances
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- 18.0 Audits
- Supplement I, Software
- Supplement II, Sample Control
- Supplement III, Scientific Investigations
- Appendix C, Mined Geologic Disposal System

The following QA program elements were considered during the development of this audit plan and found to be not applicable, since LANL currently has no activity to which these elements apply:

- 3.0 Design Control
- 8.0 Identification and Control of Items
- 9.0 Control of Special Processes

10.0 Inspection  
11.0 Test Control  
13.0 Handling, Storage, and Shipping  
14.0 Inspection, Test, and Operating Status  
Supplement IV, Field Surveying  
Appendix A, High Level Radioactive Waste Form Production  
Appendix B, Transportation

#### Technical Elements

Selected quality-related work as follows:

- Work Breakdown Structure WBS No. 1.2.5.4.9, Development and Verification of Flow and Transport Codes

In addition, the technical specialist will evaluate the above activities to determine adequacy in the following areas:

1. Technical qualifications of technical personnel.
2. Understanding of procedural requirements as they pertain to related work.
3. Adequacy of technical procedures, as applicable.
4. Development of study plans, scientific investigations, work supporting documents and any related work products.

If the audit identifies a need to verify additional programmatic or technical areas, during the audit, these areas will be added to the audit scope and evaluated accordingly.

#### 5.0 AUDIT TEAM MEMBERS

Amelia I. Arceo, YMQAD, Las Vegas, Nevada, ATL  
Sandra D. Bates, YMQAD, Las Vegas, Nevada, Auditor  
James E. Clark, YMQAD, Las Vegas, Nevada, Auditor  
Thomas J. Higgins, YMQAD, Las Vegas, Nevada, Lead Technical Specialist  
John R. Matras, YMQAD, Las Vegas, Nevada, Auditor  
Kenneth T. McFall, YMQAD, Las Vegas, Nevada, Auditor  
Conrad Coulombe, Headquarters Quality Assurance Division,  
Washington, DC, Auditor  
Albin Brandstetter, Management and Operating Contractor, Las Vegas, Nevada,  
Technical Specialist

## 6.0 AUDIT CHECKLISTS

The following checklists will be used during the audit:

YM-ARC-95-11-01, Programmatic Checklist, will be used during the programmatic portions of this audit

YM-ARC-95-11-02, Technical Checklist, will be used for the examination of technical areas during this audit