

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT YM-ARP-96-13

OF THE

CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM
MANAGEMENT AND OPERATING CONTRACTOR

AT

LAWRENCE BERKELEY NATIONAL LABORATORY

BERKELEY, CALIFORNIA

JULY 8-12, 1996

Prepared by:

Dennis C. Threatt

Date: *6/7/96*

Dennis C. Threatt
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Yucca Mountain Quality Assurance Division

Approved by:

Donald G. Horton

Date: *6/12/96*

Donald G. Horton
Director
Office of Quality Assurance

Enclosure

1.0 SCOPE

This performance-based audit of Lawrence Berkeley National Laboratory (LBNL) will be conducted by a team of auditors and a technical specialist from Yucca Mountain Quality Assurance Division (YMQAD). The audit will evaluate the effectiveness of implementation of the LBNL Quality Assurance (QA) program requirements for selected activities that resulted in the product identified in Section 4.0 of this audit plan.

2.0 AUDIT SCHEDULE

Preaudit Team/Observer Meeting	8:30 a.m., July 8, 1996 Berkeley, California
Preaudit Conference	9:15 a.m., July 8, 1996 Berkeley, California
Audit Activities	10:00 a.m. to 4:00 p.m. July 8, 1996 Berkeley, California
	8:00 a.m. to 4:00 p.m. July 9-11, 1996 Berkeley, California
	8:00 a.m. to 11:45 a.m. July 12, 1996 Berkeley, California
Postaudit Conference	1:00 p.m., July 12, 1996 Berkeley, California

There will be a daily Audit Team/Observer meeting at 4:00 p.m. to review audit progress. Beginning on Tuesday, July 9, 1996, there will also be a daily Audit Team Leader/Observer/LBNL management meeting at 8:15 a.m. to communicate audit progress, to discuss potential deficiencies, and to establish needed liaison. Both daily meetings will be held at locations provided by LBNL.

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 the latest available revision of LBNL's approved and issued QA Program procedures, study plans, technical procedures, and the performance objectives established and agreed upon with LBNL management.

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

- Quality Assurance Procedure QAP 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 "Surface-Based Geophysical Testing," Work Breakdown Structure 1.2.3.11.2. The critical process steps to be evaluated are as follows:

1. Study Plan
2. Test planning
3. Data collection
4. Data verification
5. Data reduction
6. Data output
7. Data analysis
8. Data reporting

A performance-based audit evaluates products and activities 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 products;
- Documentation that substantiates quality of products;
- Performance of trained and qualified personnel; and
- Implementation of applicable QA Program Elements

5.0 AUDIT TEAM MEMBERS

Dennis C. Threatt, YMQAD, Las Vegas, Nevada, Audit Team Leader
Patrick V. Auer, YMQAD, Las Vegas, Nevada, Auditor
John J. Nicholl, Jr., Woodward Clyde Federal Services, Technical Specialist

6.0 AUDIT CHECKLIST

The following checklists will be used during the audit:

YM-ARP- 96-13-01, Performance-Based Checklist
YM-ARP- 96-13-02, Technical Checklist