

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT YM-ARP-96-07

OF THE

**CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM
MANAGEMENT AND OPERATING CONTRACTOR**

AT

**LAS VEGAS, NEVADA
AND
ALBUQUERQUE, NEW MEXICO
FEBRUARY 26 THROUGH MARCH 1, 1996**

Prepared by:

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Date: 1-26-96

**Dennis C. Threatt
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Yucca Mountain Quality Assurance Division**

Approved by:

R. E. Spence

Date: 1/30/96

**Donald G. Horton
Director
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Enclosure

1.0 SCOPE

This performance-based audit of the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) 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 Quality Assurance (QA) program requirements for selected activities that resulted in the product identified in Section 4.0 of this plan.

2.0 AUDIT SCHEDULE

The audited activities will include work being performed at Sandia National Laboratories in Albuquerque, New Mexico, under the direction of the CRWMS M&O, and work being performed at the CRWMS M&O offices in Las Vegas, Nevada. The audit will be performed in Albuquerque, New Mexico, February 26-28, 1996, and in Las Vegas, Nevada, February 29 and March 1, 1996.

Preaudit Team/Observer Meeting	8:30 a.m., February 26, 1996 Albuquerque, New Mexico
Preaudit Conference	9:15 a.m., February 26, 1996 Albuquerque, New Mexico
Audit Activities	10:00 a.m. to 4:00 p.m. February 26, 1996 Albuquerque, New Mexico
	8:00 a.m. to 4:00 p.m. February 27-28, 1996 Albuquerque, New Mexico
	8:00 a.m. to 4:00 p.m. February 29, 1996 Las Vegas, Nevada
	8:00 a.m. to 11:45 a.m. March 1, 1996 Las Vegas, Nevada
Postaudit Conference	1:00 p.m., March 1, 1996 Las Vegas, Nevada

There will be a daily Audit Team Leader/Observer meeting at 4:00 p.m. to review audit progress. Beginning on Tuesday, February 27, 1996, there will also be a daily Audit Team Leader/Observer/CRWMS M&O management meeting at 8:15 a.m. to communicate audit progress, to discuss potential deficiencies, and to establish needed liaison.

3.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements to be audited will be contained in performance-based checklists. These checklists will be developed from the CRWMS M&O's approved and issued QA program procedures, study plans, technical procedures, and the performance objectives established and agreed upon with the CRWMS M&O.

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

- Quality Assurance Procedure (QAP) 18.2, "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 generation of the "Three-Dimensional Geologic Model" (Work Breakdown Structure 1.2.3.9.5). Specifically, the development of the computer-generated model will be evaluated for the attributes listed below:

1. Data selection and input.
2. Data transfer to the model.
3. Data incorporation into the model (i.e., data reduction).
4. Data output.
5. Data output verification.
6. Data update and changes.

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 product

- Documentation that substantiates quality of products
- Performance of trained and qualified personnel
- Implementation of applicable QA program elements

5.0 AUDIT TEAM MEMBERS

Dennis C. Threatt, YMQAD, Las Vegas, Nevada, Audit Team Leader
Daniel A. Klimas, YMQAD, Las Vegas, Nevada, Audit Team Leader in Training
Stephen D. Harris, YMQAD, Las Vegas, Nevada, Auditor
Jefferson R. McCleary, CRWMS M&O/Woodward Clyde Federal Services,
Las Vegas, Nevada, Technical Specialist

6.0 AUDIT CHECKLIST

The following checklists will be used during the audit:

YMP 96-07-01, Performance-Based Checklist
YMP 96-07-02, Technical Checklist