

**OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**QUALITY ASSURANCE AUDIT PLAN**

**FOR AUDIT SNL-ARP-97-08**

**OF THE**

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

**AT**

**SANDIA NATIONAL LABORATORIES**

**ALBUQUERQUE, NEW MEXICO  
AND  
LAS VEGAS, NEVADA**

**FEBRUARY 3-7, 1997**

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Office of Quality Assurance

Approved by: *Donald G. Horton* Date: 1/7/97  
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Enclosure

## 1.0 SCOPE

This performance-based audit of Management & Operating Contractor (M&O) will be conducted by a team of auditors and a technical specialist from the Office of Quality Assurance (OQA). 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 (SNL) in Albuquerque, New Mexico, under the direction of the M&O and work being performed at the M&O offices in Las Vegas, Nevada. The audit will be performed in Albuquerque, New Mexico, February 3-4, 1997, and in Las Vegas, Nevada, February 5-7, 1997.

Preaudit Team/Observer Meeting	8:00 a.m., February 3, 1997 Albuquerque, New Mexico
Preaudit Conference	9:00 a.m., February 3, 1997 Albuquerque, New Mexico
Audit Activities	10:00 a.m. to 4:00 p.m. February 3, 1997 Albuquerque, New Mexico
	8:00 a.m. to 4:00 p.m. February 4, 1997 Albuquerque, New Mexico
	8:00 a.m. to 4:00 p.m. February 5-6, 1997 Las Vegas, Nevada
	8:00 a.m. to 11:30 a.m. February 7, 1997 Las Vegas, Nevada
Postaudit conference	1:00 p.m., February 7, 1997 Las Vegas, Nevada

There will be a daily Audit Team Leader (ATL)/Observer meeting at 4:00 p.m. to review audit progress. Beginning on Tuesday, February 4, 1997, there will also be a daily ATL/Observer/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 M&O's approved and issued QA Program procedures, study plans, technical procedures, and the performance objectives established and agreed upon with the M&O.

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 update of the "Three-Dimensional Geologic Model" (Deliverable number TR3950A). 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.
7. Review and acceptance.

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, OQA, Las Vegas, Nevada, ATL  
Daniel A. Klimas, OQA, 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:

SNL-97-08-01, Performance-Based Checklist  
SNL-97-08-02, Technical Checklist