

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN


FOR AUDIT YMP-94-05

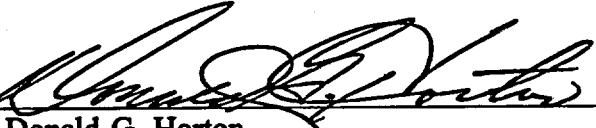
OF

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION/  
TECHNICAL AND MANAGEMENT SUPPORT SERVICES

LAS VEGAS, NEVADA

MAY 16 THROUGH 20, 1994

Prepared by:  Date: 04-12-94  
Richard L. Maudlin  
Audit Team Leader  
Yucca Mountain Quality Assurance Division

Approved by:  Date: 04-12-94  
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 Science Applications International Corporation/Technical and Management Support Services (SAIC/T&MSS) 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, adequacy, and effectiveness of systems in place, as well as verifying compliance with requirements.

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

The programmatic and technical elements to be audited during this full scope audit are identified in Section 4.0 of this audit plan.

## 2.0 AUDIT SCHEDULE

Pre-audit Team/Observer Meeting	8:00 a.m., May 16, 1994 Las Vegas, Nevada
Pre-audit Conference	9:00 a.m., May 16, 1994 Las Vegas, Nevada
Audit Activities	10:00 a.m. to 4:00 p.m. May 16, 1994 Las Vegas, Nevada
	8:00 a.m. to 4:00 p.m. May 17 through 19, 1994
	8:00 a.m. to 11:30 a.m. May 20, 1994
Daily Team Debriefing	4:00 p.m.
Post-audit Conference	2:00 p.m., May 20, 1994 Las Vegas, Nevada

There will be a daily YMQAD Audit Team/Observer meeting at 4:00 PM and also a daily Audit Team Leader/Observer/SAIC meeting starting at 8:15 AM to 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 programmatic and technical checklists. These checklists will be developed from the latest available revision of the following documents.

- OCRWM Quality Assurance Requirements and Description Document
- SAIC/T&MSS Quality Assurance implementing procedures
- Applicable Yucca Mountain Site Characterization 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
- 10.0 Inspection
- 12.0 Control of Measuring and Test Equipment
- 15.0 Nonconformances
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- 18.0 Audits

Appendix C, Mined Geologic Disposal System  
Supplement III, Scientific Investigation

The following QA program elements were considered during the development of this audit plan and found to be not applicable, since the current SAIC/T&MSS QA Program has no activity for which these elements apply:

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

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

Technical Elements

Q-List work as follows:

- Work Breakdown Structure (WBS) No. 1.2.13.4.2, Meteorology, and
- WBS No. 1.2.13.5.2, Monitoring Conditions of Population Centers Relative to Wind Patterns.

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

1. Technical qualifications of meteorological monitoring personnel.
2. Understanding of procedural requirements as they pertain to meteorological monitoring activities.
3. Adequacy of technical procedures, as applicable.
4. Development of study plans, work supporting the Site Characterization Plan, and any related work products.

5.0 AUDIT TEAM MEMBERS

Richard L. Maudlin, YMQAD/Quality Assurance Technical and Support Services (QATSS), Las Vegas, Nevada, Audit Team Leader  
Stephen R. Maslar, YMQAD/QATSS, Las Vegas, Nevada, Acting Audit Team Leader  
Patout Cotter, YMQAD/QATSS, Las Vegas, Nevada, Auditor  
Michael Donovan, YMQAD/QATSS, Arlington, Virginia, Auditor  
Kenneth O. Gilkerson, YMQAD/QATSS, Las Vegas, Nevada, Auditor  
Thomas E. Rodgers, YMQAD/QATSS, Las Vegas, Nevada, Auditor  
To Be Determined - Technical Specialist

**6.0 AUDIT CHECKLISTS**

The following checklists will be used during the audit:

YMP-94-05-01, Programmatic Checklist

YMP-94-05-02, Technical Checklist