OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT NO. YMP-91-04

OF

RAYTHEON SERVICES OF NEVADA

LAS VEGAS, NEVADA

JULY 29 THROUGH AUGUST 2, 1991

Prepared by:

Stephen F. Dana

Audit Team Leader

Date: 6/26/91

Approved by:

Director

Office of Quality Assurance

Date: 6/28/91

1.0 SCOPE

This external audit, by a team of auditors from the Yucca Mountain Quality Assurance Division of the Office of Quality Assurance will evaluate the Raytheon Services Nevada (RSN) Quality Assurance Program to determine whether it meets the requirements and commitments imposed by the Office of Civilian Radioactive Waste Management. This will be done by verifying implementation and effectiveness of the program in place, as well as verifying compliance with requirements.

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

2.0 AUDIT SCHEDULE

Pre-Audit Team/Observer Meeting 8:30 a.m., July 29, 1991

Las Vegas, Nevada

Pre-Audit Conference 10:00 a.m., July 29, 1991

Las Vegas, Nevada

Audit Activities 1:00 p.m. to 4:00 p.m., July 29, 1991

Las Vegas, Nevada

8:30 a.m. to 4:00 p.m., July 30 through

August 1, 1991 Las Vegas, Nevada

Post-Audit Conference 10:00 a.m., August 2, 1991

Las Vegas, Nevada

Note: There will be daily audit team/observer meetings starting at

4:00 p.m.; and there will be daily audit team/RSN management

meetings starting at 8:00 a.m. to discuss potential deficiencies and

problem areas.

3.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements to be audited will be contained in the pre-approved programmatic and technical checklists. These checklists will be developed from the latest available revision of the following documents:

- o RSN Quality Assurance Program Description and applicable implementing procedures
- o Applicable YMPO Project Administrative Procedures (Quality) (APQs)

The conduct of the audit will be guided by the documents listed below:

- Quality Assurance Administrative Procedure QAAP 18.2, Revision 3, "Audit Program"
- o QAAP 16.1, Revision 3, "Corrective Action Requests"
- o YMP Audit Observer Inquiry
- o Policy for Participation of State, Tribal and NRC Representatives as Observers on Department of Energy (DOE) Audits, dtd. July 14, 1987

4.0 ACTIVITIES TO BE AUDITED

Programmatic Elements

RSN activities associated with the following QA Program elements will be audited:

- 1.0 Organization
- 2.0 Quality Assurance Program
- 3.0 Design Control
- 4.0 Procurement Document Control
- 5.0 Instructions, Procedures, Plans, and Drawings
- 6.0 Document Control
- 7.0 Control of Purchased Items and Services
- 15.0 Control of Nonconforming Items
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- 18.0 Audits
- 19.0 Computer Software

The following programmatic elements will not be audited since RSN has no activities to which these elements apply:

- 8.0 Identification and Control of Materials, Parts and Components
- 9.0 Control of Processes
- 10.0 Inspection
- 11.0 Test Control
- 12.0 Control of Measuring and Test Equipment
- 13.0 Handling, Storage and Shipping
- 14.0 Inspection, Test, and Operating Status
- 20.0 Scientific Investigations

Technical Areas

A technical specialist will review the following area to evaluate performance of ongoing, new, and near-term technical activities:

WBS No. 1.2.6, "Exploratory Shaft Facility"

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

- 1. Technical qualification of design personnel.
- 2. Understanding of procedural requirements as they pertain to design control activities.
- 3. Adequacy of technical procedures.
- 4. Development and review of technical products.

If the Audit Team identifies a need to verify additional programmatic or technical areas during the audit, they will be added to the audit checklist(s) and verified accordingly.

5.0 AUDIT TEAM MEMBERS

Stephen R. Dana, Science Applications International Corporation (SAIC), Las Vegas, Nevada, Audit Team Leader

Amelia I. Arceo, SAIC, Las Vegas, Nevada, Auditor

George B. Derner, Harza Engineering Company, Las Vegas, Nevada, Technical Specialist

Stephen P. Hans, SAIC, Las Vegas, Nevada, Auditor

Robert H. Klemens, SAIC, Las Vegas, Nevada, Auditor

John S. Martin, SAIC, Las Vegas, Nevada, Auditor

John R. Matras, SAIC, Las Vegas, Nevada, Auditor

Cynthia H. Prater, SAIC, Las Vegas, Nevada, Auditor-in-Training

Charles C. Warren, MAC Technical Services Company, Las Vegas, Nevada,

6.0 AUDIT CHECKLISTS

The following checklists will be used in conjunction with this audit:

91-04-1 Programmatic checklist

91-04-2 Technical checklist