

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

AUDIT 90-I-01

OCTOBER 15 THROUGH OCTOBER 19, 1990 (WASHINGTON, DC)

OCTOBER 22 THROUGH 26, 1990 (LAS VEGAS, NV)

Prepared by:

Stephen R. Dana
Stephen R. Dana
Audit Team Leader

Date:

9/20/90

Prepared by:

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Charles C. Warren
Lead Auditor

Date:

9-21-90

Prepared By:

Martha J. Mitchell
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Lead Technical Specialist

Date:

21 Sept 90

Approved By:

Donald G. Horton
Donald G. Horton, Director
Office of Quality Assurance

Date:

9/24/90

1.0 PURPOSE/SCOPE

The purpose of this audit is to evaluate the implementation and effectiveness of the quality assurance management controls applied to all Office of Civilian Radioactive Waste Management (OCRWM) activities affecting quality. The audit will focus on those activities associated with the Mined Geologic Disposal System (MGDS) with particular emphasis on near-term new site characterization activities.

The scope of the audit will be to verify the following:

1. Establishment of program level technical baseline documents.
2. Adequacy of the Quality Assurance (QA) program. This will be done by verifying implementation and effectiveness of the program in place, as well as verifying compliance with requirements.

Discrepancies identified during previous audits and surveillances of the OCRWM that have not been closed will be added to the scope of this audit to determine whether the OCRWM has taken effective corrective actions in those program areas.

The programmatic and technical elements to be audited, as well as the programmatic elements that have not been included, are identified in Section 5.0 of the audit plan.

2.0 ORGANIZATION TO BE AUDITED

Office of Civilian Radioactive Waste Management

1. Office of Systems and Compliance (OSC)
 - a. Systems Engineering and Program Integration Division
 - b. Regulatory Compliance Division
2. Office of Program and Resources Management (OPRM)
 - a. Information Resources Management Division
3. Office of Geologic Disposal (OGD)
 - a. Requirements Analysis Verification Division (HQ)
 - b. Yucca Mountain Project Office

3.0 AUDIT SCHEDULE

Headquarters

Team/Observer Badging	8:00 a.m., October 15, 1990 Forrestal Building
Pre-Audit Team/Observer Meeting	9:00 a.m., October 15, 1990 Forrestal Building
Pre-Audit Conference	10:30 a.m., October 15, 1990 Forrestal Building
Audit Activities	1:00 p.m. to 4:00 p.m. October 15, 1990
Audit Activities	8:30 a.m. to 4:00 p.m. October 16 to October 18, 1990
Audit Activities	8:30 a.m. to 11:00 a.m. October 19, 1990
Headquarters Preliminary Post-Audit Conference	1:00 p.m., October 19, 1990 Forrestal Building

Yucca Mountain Project Office

Pre-Audit Team/Observer Meeting	9:00 p.m., October 22, 1990 Valley Bank Center
Pre-Audit Conference	10:30 p.m., October 22, 1990 Valley Bank Center
Audit Activities	12:30 p.m. to 4:00 p.m. October 22, 1990
Audit Activities	8:00 a.m. to 4:00 p.m. October 23 to October 25, 1990
Audit Activities	8:00 a.m. to 11:30 a.m. October 26, 1990
Yucca Mountain Project Office Preliminary Post-Audit Conference	1:00 p.m., October 26, 1990 Valley Bank Center

Post-Audit Conference	9:00 a.m., October 31, 1990 Forrestal Building
Daily Audit Status Meeting	8:30 a.m., Forrestal Building/ Valley Bank Center
Daily Team Caucus	4:00 p.m., Forrestal Building/ Valley Bank Center

4.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements to be evaluated through the audit process are contained in the programmatic and technical checklists. These checklists will be developed from the following documents:

Technical Baseline

- o Waste Management System Description (WMSD)
- o Waste Management System Requirements (WMSR) Volume I
- o WMSR Volume IV
- o MGDS System Description (SD)
- o MGDS System Requirements (SR)
- o Site Requirements Document (SRD)
- o Test & Evaluation Planning Basis (T&EPB)
- o Surface-Based Testing Facilities Requirements Document (SBTFRD)
- o Study Plans

Program Documents

- o DOE/RW-0215, "Quality Assurance Program Description Document for the Civilian Radioactive Waste Management Program," (QAPD), Revision 2
- o Quality Assurance Controls Document (QACD)
- o OCRWM Quality Assurance Program Procedures (QAPPs)
- o OCRWM Implementing Line Procedures (ILPs)
- o Program Change Control Procedure (PCCP)
- o Yucca Mountain Project Office (Project Office) Quality Management Procedures (QMPs)
- o Yucca Mountain Project Administrative Procedures Manual
- o Project Office Branch Technical Procedures (BTPs)

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

- o QAAP 18.2, "Audit Program," Revision 1
- o QAAP 16.1, "Corrective Action Requests," Revision 1
- o QA Audit Task Organization
- o Audit Observer Inquiry

- o Policy for Participation of State, Tribal, and U.S. Nuclear Regulatory Commission (NRC) Representative Observers on Department of Energy (DOE) Audits, dated July 14, 1987
- o High Level Waste Division Procedure for Conducting Observation Audits of U.S. Department of Energy (DOE) High Level Waste Repository Program QA Audits

5.0 ACTIVITIES TO BE AUDITED

The activities to be audited during the audit include the following:

Programmatic Elements

- 1.0 Organization
- 2.0 Quality Assurance Program
- 3.0 Design Control
- 4.0 Procurement Document Control
- 5.0 Instructions, Plans, Procedures, and Drawings
- 6.0 Document Control
- 7.0 Control of Purchased Items and Services
- 8.0 Identification and Control of Materials, Parts, Components, and Samples (Project Office)
- 12.0 Control of Measuring and Test Equipment (Project Office)
- 13.0 Handling, Storage, and Shipping (Project Office)
- 15.0 Control of Nonconforming Conditions
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- 18.0 Audits
- 20.0 Scientific Investigation Control

The following programmatic elements will not be audited:

- 9.0 Control of Processes
- 10.0 Inspection
- 11.0 Test Control
- 14.0 Inspection, Test, and Operating Status
- 19.0 Computer Software

Technical Elements

- | <u>1. SCP SECTION</u> | <u>TITLE</u> |
|-----------------------|--|
| 8.3.1.5.2.1 | Characterization of the Quaternary Regional Hydrology |
| 8.3.1.17.4.2 | Location and Recency of Faulting Near Prospective Surface Facilities |

2. Sample Management Facility

3. Establishment of the Technical Baseline

The Technical Specialists will evaluate the above activities to determine adequacy in the following areas:

- o Qualification of technical personnel.
- o Understanding of procedural requirements as they pertain to technical activities.
- o Adequacy of technical plans and procedures.
- o Development of study plans and any related work 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.

6.0 AUDIT TEAM MEMBERS

Stephen Dana - SAIC, Las Vegas, Nevada, Audit Team Leader
Charles Warren - MACTEC, Las Vegas, Nevada, Lead Auditor
Martha Mitchell - SAIC, Las Vegas, Nevada, Lead Technical Specialist
Amelia Arceo - SAIC, Las Vegas, Nevada, Auditor (Las Vegas only)
Paul Bryant - SAIC, Las Vegas, Nevada, Technical Specialist (HQ only)
Bob Clark - DOE/HQ, Washington, DC, Auditor (HQ only)
Edward Cocoros - MACTEC, Las Vegas, Nevada, Auditor
Neil Cox - SAIC, Las Vegas, Nevada, Auditor
Mario Diaz - DOE/Project Office, Las Vegas, Nevada, Auditor
James George - CER, Washington, DC, Auditor
John Martin - SAIC, Las Vegas, Nevada, Auditor
Marc Meyer - CER, Washington, DC, Technical Specialist
Art Spooner - WESTON, Washington, DC, Auditor
Richard Weeks - SAIC, Las Vegas, Nevada, Auditor (Las Vegas only)
Ardell Whiteside - SAIC, Golden, Colorado, Auditor

7.0 AUDIT CHECKLISTS

- 90-I-01-1 Programmatic Audit Checklist (HQ)
- 90-I-01-2 Technical Audit Checklist (HQ)
- 90-I-01-3 Programmatic Audit Checklist (Las Vegas)
- 90-I-01-4 Technical Audit Checklist (Las Vegas)