

U. S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
OFFICE OF QUALITY ASSURANCE

AUDIT REPORT
OF THE
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT HEADQUARTERS
AT
WASHINGTON, D.C.

AUDIT NUMBER YM-ARC-96-17
JULY 15 THROUGH 18, 1996

Prepared by: Charles C. Warren
Charles C. Warren
Audit Team Leader
Yucca Mountain Quality
Assurance Division

Date: 8-7-96

Approved by: Donald G. Horton
Donald G. Horton
Director
Office of Quality Assurance

Date: 8/8/96

1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Audit YM-ARC-96-17, the audit team determined that the Office of Civilian Radioactive Waste Management (OCRWM) at Headquarters is satisfactorily implementing an adequate and effective QA Program, with the exception of those areas where deficiencies existed, in accordance with the U.S. Department of Energy (DOE) OCRWM Quality Assurance Requirements and Description (QARD) document, DOE/RW-0333P, Revision 5, and OCRWM implementing procedures for QA Program Elements 1.0, 2.0, 4.0, 5.0, 6.0, 7.0, 16.0, 17.0, 18.0, and Appendices A and B. There was no implementation of Supplements I or V by OCRWM Headquarters.

The audit team identified one deficiency during the audit that resulted in the issuance of one Deficiency Report (DR) by Headquarters Quality Assurance Division (HQAD). DR HQ-96-D-010 identifies a deficiency in completing Deficiency Document Encoding Forms (DDEF) in accordance with the requirements of OCRWM Administrative Procedure (AP)-16.3Q, Revision 0, "Trend Evaluation and Reporting," and OCRWM Quality Assurance Procedure (QAP) 18.2, Revision 7, "Internal Audit Program." In addition, five deficiencies identified by the audit team were corrected prior to the postaudit meeting as described in Section 5.5.4 of this report. There were no recommendations as a result of this audit.

2.0 SCOPE

The audit was conducted to evaluate adequacy of, compliance to, and effectiveness of OCRWM's QA Program at Headquarters as described in the QARD and OCRWM implementing procedures.

The QA Program elements/requirements evaluated during the audit were in accordance with the approved audit plan and are listed below.

QA PROGRAM ELEMENTS/REQUIREMENTS

- 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
- 16.0 Corrective Action
- 17.0 Quality Assurance Records
- 18.0 Audits

Supplement I, Software
Supplement V, Control of the Electronic Management of Data
Appendix A, High Level Waste Form Production
Appendix B, Storage and Transportation

The following QA Program elements/requirements were not reviewed during the audit because OCRWM Headquarters 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
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
15.0 Nonconformances
Supplement II, Sample Control
Supplement III, Scientific Investigation
Supplement IV, Field Surveying
Appendix C, Mined Geologic Disposal System

3.0 AUDIT TEAM

The following is a list of audit team members and their assigned area of responsibility:

<u>Name/Title/Organization</u>	<u>QA Program Elements/Requirements</u>
Charles C. Warren, Audit Team Leader, Yucca Mountain Quality Assurance Division (YMQAD)	1.0, 2.0, 16.0, 18.0
Robert B. Constable, Auditor, YMQAD	5.0, 6.0
Stephen R. Dana, Auditor, YMQAD	Supplements I, V Appendices A, B
Cynthia A. Humphries, Auditor, YMQAD	2.0
Jack Walsh, Auditor, HQAD	4.0, 7.0, 17.0

4.0 AUDIT MEETINGS AND PERSONNEL CONTACTED

The preaudit meeting was held at the OCRWM offices in Washington, D.C., on July 15, 1996. Briefing and coordination meetings were held with OCRWM management staff on a daily basis. Audit team meetings were also held daily to discuss issues and potential deficiencies. The audit was concluded with a postaudit meeting held at the same OCRWM offices on July 18, 1996. A list of personnel contacted during the audit is found in Attachment 1 of this report. The list includes those who attended preaudit and postaudit meetings.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Effectiveness

The audit team concluded that the OCRWM QA Program at Headquarters is adequate and is being satisfactorily implemented for QA Program Elements 1.0, 2.0, 4.0, 5.0, 6.0, 7.0, 16.0, 17.0, 18.0, and Appendices A and B. There was no implementation of Supplements I and V.

5.2 Stop Work or Immediate Corrective Actions Taken

There were no Stop Work Orders issued or immediate corrective action taken as a result of the audit.

5.3 QA Program Audit Activities

A summary table of audit results is provided in Attachment 2. The details of the audit evaluation, along with objective evidence reviewed, are contained within the audit checklists. The completed checklists are maintained as QA Records.

5.4 Technical Audit Activities

None

5.5 Summary of Deficiencies

The audit team identified one deficiency during the audit for which one DR was issued. Five additional deficiencies were identified and corrected prior to the postaudit meeting.

Synopses of the deficiency documented as a DR and those corrected during the audit are detailed below. The DR has been issued to the responsible individual by

separate letter dated July 29, 1996, from D. G. Horton to R. W. Clark, in accordance with AP 16.1Q, Revision 1, "Performance/Deficiency Reporting."

5.5.1 Corrective Action Requests (CAR)

None

5.5.2 Deficiency Reports (DR)

HQ-96-D-010

AP-16.3Q, Revision 0, Section 5.1.2c) requires Quality Assurance Representatives to prepare a DDEF when a deficiency document is initiated, and in Section 7.2 designates the DDEF as a nonpermanent QA Record. In addition, QAP 18.2Q, Revision 7, Section 7.2, designates the DDEF as a nonpermanent QA Record used to document conditions corrected during audits. There was no objective evidence of completion of DDEFs for at least three initiated OCRWM Headquarters deficiency documents and ten conditions corrected during an OCRWM Headquarters audit.

5.5.3 Performance Reports (PR)

None

5.5.4 Deficiencies Corrected During the Audit

Deficiencies that are considered isolated in nature and only requiring remedial action can be corrected during the audit. The following deficient conditions were identified and corrected during the course of the audit:

1. QAP 2.8, Revision 1, "Surveillance," Section 7.1, designates completed QA surveillance records (reports) as lifetime QA records. Contrary to this requirement, completed QA Surveillance Record HQ-SRP- 95-02 was not maintained as a QA record in the Quality Records Center. This condition was corrected by entering the document into the Quality Records Center.
2. QARD, Revision 5, Section 2.2.12J, states in part, "....Ensure personnel are indoctrinated in the following topics as they

relate to a particular function: 1. General criteria, including, applicable codes, regulations and standards...." Contrary to the above, an employee's training assignment sheet showed that indoctrination assignments had not been completed at the time of the audit. These assignments were completed and documented prior to the close of the audit.

3. HLP-2.1Q, Revision 0, Interim Change Notice (ICN) 3, Section 5.6.1e), "Verification, Indoctrination, and Training of Personnel," requires that the employee "Forward the completed Self-Study Sheet to the Training Officer....as each....maintenance self-study assignment is completed." Contrary to the above, an individual had not forwarded the completed Self-Study Sheets to the Training Officer. The readings were documented prior to the conclusion of the audit and forwarded to the Training Officer. It was determined that there was no adverse impact from the individual not documenting self-study assignments as they had read, and in some instances been involved in, the review/comment cycle for these procedures.
4. QAP 2.7, Revision 3, ICN 1, Section 5.1.2f), "Management Assessment," requires the Management Assessment Team Leader to sign the assessment plan and forward it to the Director, OCRWM. Documentation that the Management Assessment Team Leader had approved and forwarded the assessment plan to the Director, OCRWM, had not been included in the Quality Records Package. This condition was corrected prior to the close of the audit.
5. Two software applications utilized by Energy Information Administration (EIA), Form RW-859, Nuclear Fuel Data, and PC-International Nuclear Model (PCINM), were controlled in accordance with the QARD, Revision 5, Supplement I, Section 1.2. A QARD Applicability Questionnaire, approved May 23, 1996, reevaluated the Form RW-859 software and determined that the work done by EIA is not subject to the requirements of the QARD. However, the QARD Applicability Questionnaire did not address the PCINM software. This condition was corrected by a revision to the QARD Applicability Questionnaire documenting that work done by EIA for both Form RW-859 and PCINM software are not subject to the requirements of the QARD.

5.5.5 Follow-up of Previously Identified Deficiency Documents

Corrective action for OCRWM PR YMQAD-96-P-002 was verified during the audit and the PR was closed.

6.0 RECOMMENDATIONS

None

7.0 LIST OF ATTACHMENTS

Attachment 1: Personnel Contacted During the Audit
Attachment 2: Summary Table of Audit Results

ATTACHMENT 1

PERSONNEL CONTACTED DURING THE AUDIT

<u>Name</u>	<u>Organization/Title</u>	<u>Preaudit Meeting</u>	<u>Contacted During Audit</u>	<u>Postaudit Meeting</u>
L. H. Barrett	RW-2/Deputy Director, OCRWM		X	
C. E. Betts	RW-3.1/Sr. QA Engineer		X	
S. A. Bokhari	RW-40/Sr. Project Management Integrator	X		X
W. E. Booth	Weston/QAMA Team Leader		X	
Maria Caple	RW-3.1/Technical Administrator		X	
J. H. Carlson	RW-37/Division Director	X		
B. L. Castillo	RW-3.1/Office Administrator		X	
R. W. Clark	RW-3.1/Director, HQAD		X	X
L. J. Desell	RW-44/45/Division Director	X		
Dan Dresser	Weston/Sr.Scientist QA	X		
J. J. George	RW-3.1/Verification Lead	X	X	X
D. C. Hendrix	RW-3.1/Sr. Training Specialist		X	
D. G. Horton	RW-3/Director, OQA	X	X	X
T. W. Johnson	RW-3.1/Audit Coordinator		X	X
D. W. Kane	RW-46/Nuclear Engineer		X	
W. H. Lake	RW-46/General Engineer		X	
J. A. Leahy	RW-14/Contract Analyst	X	X	X
C. M. Lukasik	RW-16/Director, Human Resources	X	X	
R. A. Milner	RW-30/Director, OPMI	X		
B. S. Murthy	RW-3.1/QA Specialist		X	X
M. L. Payton	RW-44/Nuclear Utility Analyst		X	
R. E. Peck	RW-3.1/Systems & Engineering Lead		X	
J. M. Roccapriore	RW-16/Training Officer	X	X	X
Gladys Ruffin	RW-12/Quality Records Center Manager		X	
M. S. Senderling	RW-37/General Engineer	X		
K. L. Svinicki	RW-44/Nuclear Engineer		X	
Pat Van Nelson	Weston/Deputy Program Manager	X		X
J. G. Vlahakis	RW-44/General Engineer			X
L. W. Wagner	RW-3.1/Division Manager	X	X	X
C. E. Weber	RW-3.1/QA Specialist	X	X	X
T. A. Wood	RW-14/Director, Contracts Management	X		

Legend

OPMI - Office of Program Management and Integration
OQA - Office of Quality Assurance
QAMA - Quality Assurance Management Assessment
RW - Radioactive Waste

ATTACHMENT 2

Summary Table of Audit Results

AUDIT YMP-ARC-96-17 DETAIL SUMMARY										
QA ELEMENT	DOCUMENTS REVIEWED	DETAILS (Checklist)	CAR (5.5.1)	DR (5.5.2)	PR (5.5.3)	CDA (5.5.4)	REC (6.0)	ADEQUACY	COMPLIANCE	OVERALL
1	QAP 1.1, Rev. 3	Pgs. 2-6	N	N	N	N	N	SAT	SAT	SAT
2	HLP - 2.1Q, Rev. 0	Pgs. 7-22	N	N	N	3	N	SAT	SAT	SAT
	QAAP - 2.3Q, Rev. 1	Pgs. 22-29	N	N	N	N	N	SAT	N/I	
	HLP - 2.10Q, Rev. 0	Pgs. 30-47	N	N	N	N	N	SAT	N/I	
	QAP 2.4, Rev. 1	Pgs. 48-51	N	N	N	N	N	SAT	N/I	
	QAP 2.5, Rev. 0	Pg. 52	N	N	N	N	N	SAT	N/I	
	QAP 2.6, Rev. 3	Pg. 53	N	N	N	N	N	SAT	N/I	
	QAP 2.7, Rev. 3	Pgs. 54-64	N	N	N	4	N	SAT	SAT	
	QAP 2.8, Rev. 1	Pgs. 65-68	N	N	N	1	N	SAT	SAT	
	OARD, Rev. 5	Pg. 12	N	N	N	2	N	SAT	SAT	

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QA ELEMENT	DOCUMENTS REVIEWED	DETAILS (Checklist)	CAR (5.5.1)	DR (5.5.2)	PR (5.5.3)	CDA (5.5.4)	REC (6.0)	ADEQUACY	COMPLIANCE	OVERALL
4 & 7	HLP - 7.1Q, Rev. 0	Pgs. 100-108	N	N	N	N	N	SAT	SAT	SAT
5	QAP 3.5, Rev. 2	Pgs. 69-77	N	N	N	N	N	SAT	N/I	SAT
	QAP 5.1, Rev. 6	Pgs. 78-85	N	N	N	N	N	SAT	SAT	
6	HLP-6.1Q, Rev. 0	Pgs. 86-93	N	N	N	N	N	SAT	SAT	SAT
	QAP 6.2, Rev. 2	Pgs. 94-99	N	N	N	N	N	SAT	SAT	
16	AP-16.1Q, Rev. 0	Pgs. 109-119	N	N	N	N	N	SAT	SAT	SAT
	AP-16.2Q, Rev. 0	Pgs. 120-126	N	N	N	N	N	SAT	SAT	
	AP-16.3Q, Rev. 0	Pgs. 127-128	N	HQ-96- D-010	N	N	N	SAT	UNSAT	

ATTACHMENT 2

Summary Table of Audit Results

AUDIT YMP-ARC-96-17 DETAIL SUMMARY										
QA ELEMENT	DOCUMENTS REVIEWED	DETAILS (Checklist)	CAR (5.5.1)	DR (5.5.2)	PR (5.5.3)	CDA (5.5.4)	REC (6.0)	ADEQUACY	COMPLIANCE	OVERALL
17	HLP-17.1Q, Rev. 1	Pgs. 129-136	N	N	N	N	N	SAT	SAT	SAT
	HLP-17.2O, Rev. 1	Pgs. 137-145	N	N	N	N	N	SAT	SAT	
18	QAP 18.1, Rev. 5	Pgs. 146-148	N	N	N	N	N	SAT	SAT	SAT
	QAP 18.2, Rev. 7	Pgs. 149-152	N	HQ-96- D-010	N	N	N	SAT	SAT	
SI	HLP-SI.1Q, Rev. 1	Pgs. 153-159	N	N	N	5	N	SAT	N/I	N/I
SV	QARD, Rev. 5	Pgs. 160-161	N	N	N	N	N	N/A	N/I	N/I
APP A	OARD, Rev. 5	Pgs. 162-163	N	N	N	N	N	SAT	SAT	SAT
APP B	OARD, Rev. 5	Pg. 164	N	N	N	N	N	SAT	SAT	SAT
TOTAL		Pgs. 1 -164	N	1	N	5	N	SAT	SAT	SAT

LEGEND:

CAR Corrective Action Request
 DR Deficiency Report
 PR Performance Report
 CDA Corrected During the Audit
 N None
 N/A Not Applicable
 N/I No Implementation

ADEQUACY Requirements in Procedure meet QARD
 COMPLIANCE Procedures Implemented
 OVERALL Summary of Element
 SAT Satisfactory
 REC Recommendations
 UNSAT Unsatisfactory