

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

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

AUDIT NUMBER OCRWM-ARC-97-23  
AUGUST 4-7, 1997

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Date: Sept 8, 1997

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Date: 9/25/97

## 1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Audit OCRWM-ARC-97-023, the Audit Team determined that, with the exception of those areas where deficiencies existed, the Office of Civilian Radioactive Waste Management (OCRWM) at Headquarters is satisfactorily implementing the U.S. Department of Energy (DOE) OCRWM Quality Assurance Requirements and Description (QARD) document, DOE/RW-0333P, Revision 7, and OCRWM implementing procedures. 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, were determined to be satisfactorily implemented. There was no implementation of Supplements I or V by OCRWM Headquarters.

The Audit Team identified several conditions adverse to quality during the audit that resulted in the issuance of two Deficiency Reports (DR) by the Office of Quality Assurance (OQA). DR YM-97-D-086 addresses the lack of objective evidence of initial indoctrination and training, self study sheets for procedure revisions, and revised training assignment sheets when personnel are reassigned, or their position changes. DR YM-97-D-081 addresses HLP 6.1Q delegating the YAP 6.2Q for control of QAPs, APs and HLPs which are actually being controlled by the Civilian Radioactive Waste Management System Management and Operating Contractor's (CRWMS M&O) document control procedure QAP 6.2Q. Additionally, DR YM-97-D-78, which was generated during Audit YMSCO-ARC-97-22, incorporated two OCRWM procedures evaluated during this audit that incorrectly referenced a canceled branching procedure.

## 2.0 SCOPE

The audit was conducted to evaluate the adequacy, compliance, and effectiveness of implementation of the QARD and OCRWM implementing procedures at Headquarters.

The following QA Program elements/requirements were evaluated during the audit, in accordance with the approved audit plan:

### 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 to 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 AND OBSERVERS

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

| <u>Name/Title/Organization</u>                    | <u>QA Program Elements/Requirements</u>         |
|---|---|
| Donald J. Harris, OQA, Las Vegas, NV, ATL         | 1.0, 2.0, 16.0 and 18.0                         |
| Kenneth O. Gilkerson, OQA, Las Vegas, NV, Auditor | 2.0, 4.0, 6.0, 7.0, Supp I and Appendices A & B |
| Gary D. Wood, OQA, Washington, DC, Auditor        | 2.0, 5.0, 17.0 and Supp V                       |

### 4.0 AUDIT MEETINGS AND PERSONNEL CONTACTED

The pre-audit meeting was held at the OCRWM offices in Washington, DC, on August 4, 1997. Briefing and coordination meetings were held with OCRWM management staff as needed. The audit was concluded with a post-audit meeting held at the same OCRWM offices on August 7, 1997. A list of personnel contacted during the audit is found in Attachment 1 of this report. The list includes those who attended the pre-audit and post-audit meetings.

## 5.0 SUMMARY OF AUDIT RESULTS

### 5.1 Program Effectiveness

The Audit Team concluded that, overall, 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. Supplement I, "Implementing Procedure HLP SI-1Q Control of Energy Information Administration Software," was cancelled on August 5, 1997. Additionally, there was no implementation of Supplement V, "Control of Electronics Management of Data," since the last audit.

### 5.2 Stop Work or Immediate Corrective Actions Taken

There were no Stop Work Orders, immediate corrective actions or related additional items resulting from this 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 several conditions adverse to quality during the audit for which two DRs were issued. Additionally, DR YM-97-D-078 from the Audit YMSCO-ARC-97-022 incorporated procedure problems encountered during this audit.

Synopsis of the conditions adverse to quality documented as DRs are detailed below. DRs YM-97-D-081 and YM-97-D-086 were issued by separate letters in accordance with AP 16.1Q, Revision 1, "Performance/Deficiency Reporting."

#### 5.5.1 Corrective Action Requests (CAR)

None

## 5.5.2 Deficiency Reports

### YM-97-D-081

QARD DOE/RW 0333D, Revision 7, Section 5.2, requires work to be performed in accordance with controlled implementing documents. Section 5.2.2 requires implementing documents to include responsibilities and organizational interfaces of the organizations affected by the document, and Section 5.2.4 requires work to be stopped when it cannot be accomplished as required in implementing documents, or accomplishment would result in an undesirable situation.

Contrary to the requirements, HLP 6.1Q, Revision 0, ICN 1, "Controlled Documents," delegates document control of QAPs, APs, and HLPs to YAP 6.2Q, a local implementing procedures for YMSCO and their affected organizations, not OCRWM personnel in Washington, DC. Additionally, controlled documents such as QAPs, APs and HLPs are actually transmitted and maintained in accordance with the CRWMS M&O document control procedure QAP 6.2Q. The interfaces are not appropriately described in YAP 6.2Q.

### YM-97-D-086

HLP-2.1Q, Revision 0, ICN 3, "Verification, Indoctrination and Training of Personnel." Section 5.6.1e requires the employee to complete a self-study sheet of any initial proficiency, maintenance or special task self-study assignments. Section 5.7.1a requires management/supervisor to evaluate and assess the need for changes to proficiency or maintenance requirements based on change to assignments, position, responsibilities, implementing documents, or changes in technology. Section 5.8.1 requires manager/ supervisor to notify the training officer, via the training assignment sheet, when the employee is realigned, reassigned, terminated, or detailed/leave of absence.

Contrary to the requirements, there is no objective evidence that formal classroom training was completed for the QA Program Orientation or the QARD Orientation for one individual from Headquarters. There was no objective evidence of self study sheets being completed for AP 16.1Q, "Performance/Deficiency Reporting," and AP 16.2Q Revisions, "Corrective Action and Stop Work," in one instance; and in another instance, self-study sheets for procedure revisions and notification to the training officer, via the training assignment sheet, were not accomplished when an employee was reassigned.

**YM-97-D-078 (Audit YMSCO-ARC-97-22)**

QARD DOE/RW-0333P, Revision 7, Section 5.2.4, requires compliance with implementing documents. When work cannot be accomplished as described in the implementing document, or accomplishment of such work would result in an undesirable situation, the work shall be stopped and not resumed until the implementing document is changed to reflect the correct work practices.

Contrary to the requirements, QAP 18.1, Revision 5, "Auditor Qualification," and QAP 18.2, Revision 7, "Internal Audit Program," references HLP 17.1Q, "Record Source Responsibilities for Inclusionary Records," a branching procedure, which was cancelled by issuance of AP 17.1Q, "Record Source Responsibilities for Inclusionary Records," on November 22, 1996.

**5.5.3 Performance Reports (PR)**

None

**5.5.4 Deficiencies Corrected During the Audit**

None

**5.5.5 Follow-up of Previously Identified CARs and DRs**

There was one previously issued DR HQ-96-D-010, which was generated as a result of Audit YM-ARC-96-17, that was determined to be applicable to the scope of this audit.

Deficiency Document Encoding Forms were not generated for Headquarters' deficiency documents and for those conditions corrected during an audit. This DR was closed October 9, 1996. The Audit Team evaluated the remedial and corrective action, and determined that the corrective action was effective.

**6.0 RECOMMENDATIONS**

None

**7.0 LIST OF ATTACHMENTS**

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

ATTACHMENT I

PERSONNEL CONTACTED DURING THE AUDIT

| <u>Name</u>         | <u>Organization/Title</u>  | <u>Preaudit Meeting</u> | <u>Contacted During</u> | <u>Postaudit Meeting</u> |
|---------------------|--|-------------------------|-------------------------|--------------------------|
| J. C. Bresee        | RW-50/Deputy Office Director, OCRWM                                | X                       | X                       |                          |
| J. H. Carlson       | RW-44/Division Director, OCRWM                                     | X                       |                         |                          |
| J. J. George        | RW-3/Senior QA Specialist  | X                       | X                       | X                        |
| D. C. Hendrix       | RW-3/Senior Training Specialist                                    |                         | X                       |                          |
| J. A. Leahy         | RW-14/Contract Analyst   |                         | X                       |                          |
| R. A. Milner        | RW-1/Acting Deputy Director  | X                       | X                       | X                        |
| B. S. Murthy        | RW-3/QA Specialist   |                         | X                       | X                        |
| Sam Rousso          | RW-50/Director, Office of Program<br>Management and Administration | X                       | X                       | X                        |
| Gladys Ruffin       | RW-12/Records Processing Center Supervisor                         |                         | X                       |                          |
| Delores Ellis-Brown | RW-12/Records Processing Center                                    |                         | X                       |                          |
| M. S. Senderling    | RW-37/System Engineer  |                         | X                       |                          |
| C. E. Weber         | RW-3/QA Specialist   | X                       | X                       | X                        |
| T. A. Wood          | RW-55/Director, Contract Management                                |                         | X                       |                          |
| S. Peterson         | RW-51/Engineering Division   |                         | X                       |                          |
| T. C. Van Ober      | RW-51/Systems Engineering Division                                 |                         | X                       |                          |
| J. R. Williams      | RW-51/Acting Director, Engineering Division                        |                         | X                       |                          |
| M. E. Lobo          | RW-3/Secretary/Receptionist  |                         | X                       |                          |
| D. G. Sult          | RW-3/Administrator, Technical Database                             |                         | X                       |                          |
| C. M. Lukasik       | OCRWM HQ Training Coordinator                                      |                         | X                       |                          |
| C. A. Kouts         | RW-45/Director, Storage and Engineering<br>Technology Division     |                         | X                       |                          |

**ATTACHMENT 2**

**Summary Table of Audit Results**

| <b>AUDIT OCRWM-ARC-97-23</b> |                           |                            |                    |                             |                   |                    |                  |                 |                   |                |
|------------------------------|---------------------------|----------------------------|--------------------|-----------------------------|-------------------|--------------------|------------------|-----------------|-------------------|----------------|
| <b>QA ELEMENT</b>            | <b>DOCUMENTS REVIEWED</b> | <b>DETAILS (Checklist)</b> | <b>CAR (5.5.1)</b> | <b>DR (5.5.2)</b>           | <b>PR (5.5.3)</b> | <b>CDA (5.5.4)</b> | <b>REC (6.0)</b> | <b>ADEQUACY</b> | <b>COMPLIANCE</b> | <b>OVERALL</b> |
| 1                            | QAP 1.1, Rev. 4           | Pgs. 1-6                   | N                  | N                           | N                 | N                  | N                | SAT             | SAT               | SAT            |
| 2                            | HLP-2.1Q, Rev. 0, ICN 3   | Pgs. 14-26                 | N                  | YM-97-D-086                 | N                 | N                  | N                | SAT             | Marginal          | SAT            |
|                              | HLP-2.10Q, Rev. 0         | Pgs. 27-41                 | N                  | N                           | N                 | N                  | N                | SAT             | N/I               |                |
|                              | QAP 2.4, Rev. 1, ICN 1    | Pgs. 42-44                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               |                |
|                              | QAP 2.5, Rev. 0, ICN 1    | Pgs. 46-49                 | N                  | N                           | N                 | N                  | N                | SAT             | N/I               |                |
|                              | QAP 2.6, Rev. 3           | Pg. 45                     | N                  | N                           | N                 | N                  | N                | SAT             | N/I               |                |
|                              | QAP 2.7, Rev. 3, ICN 1    | Pgs. 7-10                  | N                  | N                           | N                 | N                  | N                | SAT             | SAT               |                |
|                              | QAP 2.8, Rev. 2           | Pgs. 11-14                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               |                |
| 4 & 7                        | HLP-7.1Q, Rev. 0, ICN 1   | Pgs. 72-83                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               | SAT            |
| 5                            | QAP 5.1, Rev. 7, ICN 1    | Pgs. 50-56                 | N                  | YM-97-D-081<br>YM-97-D-078* | N                 | N                  | N                | SAT             | SAT               | SAT            |
| 6                            | HLP-6.1Q, Rev. 0, ICN 1   | Pgs. 57-62                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               | SAT            |
|                              | QAP 6.2, Rev. 3, ICN 1    | Pgs. 63-71                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               |                |
| 16                           | AP-16.1Q, Rev. 2          | Pgs. 84-89                 | N                  | N                           | N                 | N                  | N                | SAT             | SAT               | SAT            |
|                              | AP-16.2Q, Rev. 2          | Pgs. 90-94                 | N                  | N                           | N                 | N                  | N                | SAT             | N/I               |                |
|                              | AP-16.3Q, Rev. 1          | Pg. 95                     | N                  | N                           | N                 | N                  | N                | SAT             | SAT               |                |

| AUDIT OCRWM-ARC-97-23 |                          |                     |             |            |            |             |           |                  |            |            |
|-----------------------|--------------------------|---------------------|-------------|------------|------------|-------------|-----------|------------------|------------|------------|
| 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                    | AP 17.1Q, Rev. 0         | Pgs. 103-106        | N           | N          | N          | N           | N         | SAT              | SAT        | SAT        |
|                       | HLP-17.2Q, Rev. 1, ICN 1 | Pgs. 96-102         | N           | N          | N          | N           | N         | SAT              | SAT        |            |
| 18                    | QAP 18.1, Rev. 5         | Pgs. 107-109        | N           | N          | N          | N           | N         | SAT              | SAT        | SAT        |
|                       | QAP 18.2, Rev. 7         | Pgs. 110-115        | N           | N          | N          | N           | N         | SAT              | SAT        |            |
| SI                    | HLP-SI.1Q, Rev. 1        | Pgs. 116-119        | N           | N          | N          | N           | N         | CANCELLED 8/5/97 |            | N/I        |
| SV                    | QARD, Rev. 7             | Pgs. 120-121        | N           | N          | N          | N           | N         | N/A              | N/I        | N/I        |
| APP A                 | QARD, Rev. 7             | Pg. 122             | N           | N          | N          | N           | N         | SAT              | SAT        | SAT        |
| APP B                 | QARD, Rev. 7             | Pg. 123             | N           | N          | N          | N           | N         | SAT              | SAT        | SAT        |
| <b>TOTAL</b>          |                          | <b>PAGES 123</b>    | <b>N</b>    | <b>3</b>   | <b>N</b>   | <b>N</b>    | <b>N</b>  | <b>SAT</b>       | <b>SAT</b> | <b>SAT</b> |

LEGEND:

|           |                            |               |                                     |
|-----------|----------------------------|---------------|-------------------------------------|
| CAR ..... | Corrective Action Request  | ADEQUACY .... | Requirements in Procedure Meet QARD |
| DR .....  | Deficiency Report          | COMPLIANCE .. | Procedures Implemented              |
| PR .....  | Performance Report         | OVERALL ..... | Summary of Element                  |
| CDA ..... | Corrected During the Audit | SAT .....     | Satisfactory                        |
| N .....   | None                       | REC .....     | Recommendation                      |
| N/A ..... | Not Applicable             | UNSAT .....   | Unsatisfactory                      |
| N/I ..... | No Implementation          | * .....       | Existing DR                         |