

U.S. NUCLEAR REGULATORY COMMISSION  
OBSERVATION AUDIT REPORT 95-01  
OF THE  
U.S. DOE OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
AUDIT HQ-95-01  
OF THE  
CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM  
MANAGEMENT AND OPERATING CONTRACTOR

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## **1.0 INTRODUCTION**

During October 10-14, 1994, members of the U. S. Nuclear Regulatory Commission Division of Waste Management Quality Assurance staff observed a U. S. Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) Office of Quality Assurance audit of Civilian Radioactive Waste Management System Management and Operating Contractor (M&O) quality assurance (QA) program relative to procurement control. The OCRWM audit, HQ-95-01, was conducted at the M&O offices in Vienna, Virginia. The audit was a performance-based evaluation of the processes and products to determine the effectiveness of the M&O QA program with regard to procurement control. In addition, the clarity of task descriptions provided to the M&O by OCRWM were also evaluated. No other organization had observers at this audit.

This report addresses the effectiveness of the OCRWM audit and the adequacy of QA controls in the audited area of the M&O QA program.

## **2.0 OBJECTIVES**

The objectives of the OCRWM audit were to determine whether the M&O QA program for procurement control and its implementation meet the applicable requirements of and commitments to the OCRWM "Quality Assurance Requirements and Description" document (QARD, DOE/RW-0333P) and associated implementing procedures.

The NRC staff's objective was to gain confidence that OCRWM and the M&O are properly implementing the requirements of their QA programs in accordance with Title 10 of the Code of Federal Regulations (10 CFR), Part 60, Subpart G (which references 10 CFR Part 50, Appendix B) and the QARD.

## **3.0 MANAGEMENT SUMMARY AND CONCLUSIONS**

The NRC staff has determined that OCRWM audit HQ-95-01 was useful and effective. The audit was well organized and conducted in a thorough and professional manner. Audit team members were independent of the activities they audited. They were well qualified in the QA discipline, and their assignments and checklist items were adequately described in the OCRWM audit plan.

The NRC staff agrees with the preliminary audit team finding that the overall implementation of the M&O QA program relative to procurement control is marginal. One preliminary Corrective Action Request (CAR) was discussed by the OCRWM audit team at the post-audit meeting. Five other potential CARs were acceptably resolved by the M&O organization during the audit. Nine recommendations were also made by the OCRWM audit team to improve various aspects of the M&O's procurement control program. Though the preliminary CAR and items corrected during the audit were minor in nature, two of the M&O process steps for the procurement control program - No. 2 dealing with work classification, No. 7 dealing with evaluation and acceptance, and No. 8 dealing with the overall process control (See Section 5.3)- were judged marginal. Four other process steps were judged effective and one step - No. 5 dealing with subcontractor (supplier) evaluation and acceptance - could not be evaluated due to the lack of activity. Procurement control should have continued M&O management attention.

OCRWM should continue to closely monitor implementation of the M&O QA program to ensure that the deficiencies identified during the audit are corrected in a timely manner and that future QA program implementation is effective. The NRC staff expects to participate in this monitoring as observers and may perform its own independent audits at a later date to assess M&O implementation of its QA program.

#### 4.0 AUDIT PARTICIPANTS

##### 4.1 NRC

John Spraul	Observer (Part Time)	Center for Nuclear Waste Regulatory Analyses (CNWRA)
Thomas Trbovich	Observer	

##### 4.2 DOE

Dennis Threatt	Audit Team Leader (ATL)	Headquarters Quality Assurance Division (HQAD)/Quality Assurance Technical Support Services (QATSS)
Fred Bearham	Auditor	HQAD/QATSS
Water Coutier	Auditor	HQAD/QATSS
Hugh Lentz	Auditor	HQAD/QATSS
Tom Swift	Auditor	HQAD/QATSS
Gary Wood	Auditor	HQAD/QATSS

#### 5.0 REVIEW OF THE AUDIT AND AUDITED ORGANIZATION

The OCRWM audit of the M&O procurement control program was conducted in accordance with OCRWM Quality Assurance Administrative Procedure (QAAP) 18.2, "Audit Program" (Revision 6) and QAAP 16.1, "Corrective Action" (Revision 6). The NRC staff observation of this audit was based on the NRC procedure, "Conduct of Observation Audits," issued October 6, 1989.

##### 5.1 Scope of the Audit and Observations

###### 5.1.1 QA Programmatic Elements

Audit HQ-95-01 was a limited scope, performance-based evaluation addressing the two QA programmatic elements involved with procurement controls. These are:

- 4.0 Procurement Document Control
- 7.0 Control of Purchased Items and Services

###### 5.1.2 Technical Areas

The OCRWM audit of the M&O procurement control program did not include technical evaluations.

## 5.2 Timing of the Audit

In light of the procurement of multi-purpose canisters, the NRC staff believes the general timing of this audit was appropriate for HQAD to evaluate the pertinent procurement controls established by the M&O and for the NRC staff to evaluate the OCRWM audit process.

## 5.3 Examinations of QA Programmatic Elements

To conduct this audit in a performance-based manner, the OCRWM audit team assigned eight process steps to the M&O procurement control program, as identified in Quality Administrative Procedure (QAP)-4-1, "Procurement Document Control," and QAP-7-1, "Control of Purchased Items and Services." These steps are listed below.

- 1) Work Definition
- 2) Work Classification
- 3) Procurement Planning
- 4) Procurement Document Preparation
- 5) Supplier Evaluation and Selection/Purchase Order Award
- 6) Post Award Activities
- 7) Evaluation and Acceptance
- 8) Overall Process Control

The OCRWM audit team was divided into two sub-teams, with three auditors auditing process steps 1, 2, and 3 and two auditors auditing process steps 4, 5, 6, and 7. Each auditor evaluated step 8 based on his individual review. The audit consisted of the review of appropriate memos, correspondence, and contractual documents as well as interviews with various M&O personnel involved with preparation, placement, and monitoring of five procurements. These procurements involved the following subcontractors:

- 1) National Underground Storage
- 2) Security Archives of Las Vegas
- 3) Sandia National Laboratory
- 4) Oak Ridge National Laboratory
- 5) General Atomics

The procedures governing procurement control appeared to be adequate; however, implementation of the required activities by the M&O personnel in the involved organizations needed improvement. The M&O QA personnel had a good understanding of requirements, but they spend much of their time directing activities or "fighting fires." Individual M&O procurement personnel appeared to perform their function, but they expect QA personnel to integrate the requirements with other M&O groups. QA personnel have not been kept totally informed of subcontracted activities, thus the OCRWM audit team recommended that status reports that are being submitted by subcontractors (weekly, monthly, and quarterly) should be provided to the Quality Engineering Support organization and other appropriate M&O organizations to assist in their planning and conducting subcontractor performance evaluations.

The lack of an apparent defined overall responsibility for procurement activities to include coordination of QA functions led to the recommendation that one individual be assigned responsibility for coordination of both technical and QA functions for procurement activities.

The National Underground Storage contract had difficulty due to noncompliance with temperature and humidity controls. This had been reported in previous OCRWM and internal M&O audits, and corrective action completion dates were set for June 1995. After much discussion about the small number of records being stored at the National Underground Storage facility, M&O management provided additional actions and promised completion by December 1994. This does not speak well for the M&O corrective action program since there was apparently unresolved internal disagreement on the proper resolution and there was no objective evidence to show that commitments were being tracked. These factors had affected the timeliness of resolution.

#### 5.4 Qualification of Audit Personnel

The qualifications of the ATL and all but one auditor were previously reviewed and found acceptable by the NRC staff, each having met the requirements of OCRWM QAAP 18.1, "Qualification of Audit Personnel." The qualifications of the one auditor whose qualifications had not been reviewed previously were reviewed by the NRC staff and found acceptable.

#### 5.5 Audit Team Independence

The OCRWM audit team was composed of QATSS personnel who support HQAD and were familiar with the M&O procedures on procurement control. The HQAD/QATSS auditors were assigned to areas where they did not have prior responsibility or involvement. The audit team members had sufficient independence to carry out their assigned functions without adverse pressure and influence.

#### 5.6 Summary of NRC Staff Findings

The NRC staff agrees with the preliminary OCRWM audit team findings that the overall implementation of the M&O procurement control program is marginal. This determination is based on the preliminary CAR resulting from the audit, on deficiencies corrected during the audit, and on several internal M&O CARs for which corrective action was not being implemented in a timely manner.

The NRC staff observed that each of the auditors reviewed an appropriate amount of documentation and interviewed sufficient M&O personnel to make valued judgments on the adequacy of each step of the procurement control process. In addition, the OCRWM audit team performed a follow-up of corrective actions resulting from previous OCRWM audits covering the same area of procurement control. As a result of this follow-up, planned corrective action completion dates identified with National Underground Storage subcontract deficiencies were moved ahead six months, from June 1995 to December 1994, by M&O management.

The OCRWM auditors followed the prepared checklists, adding questions when necessary to assure complete understanding of the process. Interviews were

conducted in a professional manner, with questioning continuing until the auditor felt confident that the personnel were familiar and understood the process. In addition, M&O personnel departmental interfaces were also evaluated. Weaknesses were found in the interfaces, and the OCRWM audit team made four recommendations to improve communication and coordination in this area.

Though the audit findings were minor in nature, the NRC is concerned that the lack of attention to detail on the procurement process for the five subcontracts, if left unchecked, could cause major difficulties with the procurement of multi-purpose canisters.

#### 5.6.1 Good Practices

The OCRWM audit team was well prepared and each team member understood the programmatic and technical aspects of performance-based auditing. The auditors were thorough, persistent, and professional in approach.

The ATL was very effective in the performance of his function. When difficulties arose in contacting M&O personnel, immediate action was taken to resolve the problem. His use of the "numbered" concerns led to good caucus discussions and effective tracking of concerns throughout the week.

The daily management meetings were very effective and conducted in a professional manner, the ATL making sure M&O personnel fully understood each problem. The closing meeting was short, but the ATL provided a detailed summary of the week's activities, making effective use of charts and computer-generated summaries.

#### 5.6.2 Weakness

The assignment of a number of subcontracts to one M&O quality engineer slowed the interview process and caused some audit delay. The functions of M&O Quality Engineering and Quality Engineering Support need to be more clearly defined. The interviews showed that M&O personnel were sometimes confused over which QA organization handles what.

#### 5.7 Audit Team Findings

The OCRWM audit team determined that the overall implementation of QA Programmatic Elements 4.0, "Procurement Document Control," and 7.0, "Control of Purchased Items and Services," were marginally effective. The deficiencies identified during this audit and through M&O CARs contributed to this determination.

One preliminary CAR was issued at the close of the audit dealing with the review of Work Authorization Directive/Technical Direction Letter for the impact of quality-affecting work being performed without a documented QA implementing procedure.

In addition, five deficiencies that were considered isolated in nature were corrected by M&O personnel during the audit. These covered timely resolution of CARs, issuance of control changes, and improper correction records.

Nine recommendations for improvements were also presented for M&O consideration.