

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION
QUALITY ASSURANCE SURVEILLANCE REPORT OF
UNITED STATES GEOLOGICAL SURVEY
SURVEILLANCE YMP-SR-94-004
CONDUCTED AT DENVER, COLORADO
NOVEMBER 1 THROUGH 3, 1993

ACTIVITIES SURVEILLED:

VERIFICATION AND IMPLEMENTATION OF CORRECTIVE ACTION FOR
CORRECTIVE ACTION REQUESTS YM-91-074, 075, 076, AND YM-93-053
THE UNITED STATES GEOLOGICAL SURVEY
EXTERNAL AUDIT PROCESS

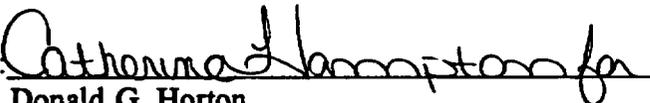
Prepared by:



Date: 11-09-93

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Approved by:



Date: 11/15/93

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1.0 EXECUTIVE SUMMARY

This surveillance of United States Geological Survey (USGS) was performed to evaluate implementation of corrective action for Office of Civilian Radioactive Waste Management (OCRWM) Corrective Action Requests (CAR) YM-93-053, YM-91-074, YM-91-075, and YM-91-076. Implementation of corrective action for CARs YM-91-074, 075, and 076 was found to be satisfactory. Implementation of corrective action for CAR YM-93-053 was found to be incomplete and acceptance of the USGS request for extension of completion of corrective action, dated October 18, 1993, is recommended.

Significant strides have been made by USGS Quality Assurance (QA) in addressing the recommendations made in Audit Report YMP-93-10 regarding the evaluation and audit of suppliers. Based on the evidence reviewed, USGS QA should be able to demonstrate a high level of confidence in their verification program, not only in external supplier audits, but in their internal audits and surveillances. The results of this surveillance did not identify any conditions adverse to quality; however, did identify one recommendation which is detailed in Section 6.0.

2.0 PURPOSE AND SCOPE

Surveillance 94-004 was conducted at the USGS in Denver, Colorado on November 1 through 3, 1993 to evaluate the corrective actions taken for CARs YM-91-074, YM-91-075, YM-91-076 and YM-93-053. Also, an evaluation of the status of the supplier evaluation and audit program was performed to determine what actions USGS had taken to address the recommendations in Audit Report YMP-93-10.

3.0 SURVEILLANCE TEAM

Richard L. Maudlin, Surveillance Team Leader, Yucca Mountain Quality Assurance Division (YMQAD)/Quality Assurance Technical Support Services

4.0 PERSONNEL CONTACTED DURING THE SURVEILLANCE

T. Chaney, Quality Assurance Manager, USGS
D. Gockel, Software Quality Assurance Specialist, USGS
L. McInroy, Quality Assurance Verification Program Manager, Science Applications International Corporation (SAIC)
J. Ziemba, Lead Auditor, SAIC

5.0 SURVEILLANCE RESULTS

Verification of Corrective Action:

Since the generation of CARs YM-91-074, YM-91-075, and YM-91-076, the USGS has been revising its implementing procedures to address the requirements of the United States Department of Energy Quality Assurance Requirements and Description (QARD), RW-0333P, Revision 0. It is anticipated that USGS will be withdrawing its Quality Assurance Program Plan (QAPP) which contains the Software Quality Assurance Plan prior to December 31, 1993. As of this date, USGS has submitted its implementing procedure for the control of software (i.e. Quality Management Procedure (QMP)-3.03, Revision 4), to YMQAD for review in meeting the requirements of the QARD (RW-0333P). The USGS has approved and issued QMP-3.03, Revision 4 for implementation.

On December 17, 1992, the Director of the Office of Quality Assurance issued a memorandum which directed Yucca Mountain Site Characterization Project (YMP) participants (USGS) to implement the Implementation Plan for transition of their existing QA program and procedures to the requirements of the Office of Civilian Radioactive Waste Management QARD, Revision 0 (RW-0333P). As a result of this direction, the USGS started revising implementing procedures to address the QARD and preparation of the QARD Implementation Matrix. On October 8, 1993, USGS identified that QMP-3.03, Revision 4, "Software" had been approved and issued to address the requirements of QARD RW-0333P. As of the date of this surveillance, the USGS has not withdrawn their QAPP; however, USGS is for all intent and purposes, implementing a procedure for the control of software which addresses the requirements of QARD RW-0333P.

Since QMP-3.03 has been issued for implementation, a determination was made by the Surveillance Team Leader, that waiting for the withdrawal of the USGS QAPP would have no affect on the newly issued procedure since it was written to address the requirements of the QARD RW-0333P. Subsequently, holding open CARs YM-91-074, 075, and 076 until withdrawal of the USGS QAPP and associated Software Quality Assurance Plan, served no purpose and would not affect future activities. Since the upper-tier requirements for which QMP-3.03, Revision 4 centered around had changed, the requirements for which CARs YM-91-074, 075, and 076 were written are considered to no longer be valid. The CARs were primarily generated around conflicts between the Software Quality Assurance Plan which is an integral part of the USGS QAPP and QMP-3.03. As a result, USGS determined that it was not in the best interest of the project to take the time to correct the conflicts between their QAPP and QMP-3.03 in light of the issuance of the QARD RW-0333P.

A review of QMP-3.03 was performed and an evaluation was made relative to the identified condition adverse to quality referenced in each of the three CARs. The details of the evaluation are documented in the CAR records package for each CAR. The actions taken by USGS are considered to have resolved the identified deficiencies and as a result, CARs YM-91-074, YM-91-075, and YM-91-076 are considered closed.

CAR YM-93-053 related to failure of USGS's implementing procedures to carry down requirements that procurement documents include appropriate QA requirements. A draft revision to QMP-4.01 was reviewed to determine what changes had been made as of the date of this surveillance. The draft reflected some improvement, but did not totally assure that all QARD requirements would be considered. Since USGS has submitted a request for extension, it is recommended that the extension be granted to allow for completion of the revision to QMP-4.01.

External Audit Program:

Discussions were held with the QA Program Verification Manager regarding actions that had been taken as of the date of this surveillance related to the recommendations identified in Audit Report YMP-93-10 for the evaluation and audit of external suppliers.

The QA Program Verification Manager has prepared a Verification Improvement Plan, dated October 27, 1993, which details actions and dates in which specific improvements are to be made. Two of the items in the Improvement Plan under the sub-title of Supplier Qualification, specifically address the recommendations noted in Audit Report YMP-93-10 (i.e. more thorough and better documented audits; more extensive audit planning). In addition to the Improvement Plan, the QA Program Verification Manager has drafted the USGS-YMP QA Program Verification Program Plan. The purpose of this plan is to provide an overview of the verification effort. Included in the plan are defined objectives (i.e. goals) and the process for achieving the objectives for each applicable area (i.e. Audit Program, Surveillance Program, Supplier Qualification Program, and Open Issues Follow-up).

The Improvement Plan and QA Program Verification Program Plan were reviewed and determined to adequately address the recommendations, as well as other aspects of the USGS verification program. USGS QA should be commended on the positive attitude and approach taken in attempting to improve their verification process. If USGS QA follows through with the objectives defined in the referenced plans, the results will demonstrate strong, well documented, and effective means for assuring quality of the products produced within the scope of the USGS responsibility.

In addition to the above, a sampling of five external supplier audits, which were performed after Audit YMP-93-10 was performed, were evaluated to determine if any visible improvements had been made in details and items covered by the checklists and content of the subsequent reports. The sample included supplier audits 93-11 (June 23, 1993), 93-12 (August 10, 1993), 93-13 (August 9, 1993), 93-14 (August 17, 1993), and 94-01 (October 7 and 8, 1993). The results of the evaluation indicated significant improvements over previous checklists and reports. The checklists keyed in on important aspects of the QA program such as personnel qualifications, existence and implementation of procedures to perform the work and control of records. The level of detail observed in the checklist as documented by the auditors was much improved. In reviewing the associated reports for the reference audits, the basis for the acceptance was well documented. The thoroughness of detail with regard to the areas evaluated indicated improvement. It was pointed out by the QA Program Verification Manager, that the quality of the process is not yet where we want it, but efforts are being made to achieve that objective.

Also, a review of the FY94 Audit Schedule (dated October 26, 1993) was evaluated against the procedural compliance of QMP-18.01, Revision 7. The schedule as issued addressed all of the minimum requirements of QMP-18.01. Implementation was considered satisfactory.

6.0 RECOMMENDATIONS

USGS QA is encouraged to continue to work toward the goals and objectives defined in the Improvement Plan and the associated QA Program Verification Program Plan.

7.0 ATTACHMENTS

None