

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

QUALITY ASSURANCE AUDIT PLAN

FOR AUDIT NO. YMP-92-22

OF

SANDIA NATIONAL LABORATORIES

ALBUQUERQUE, NEW MEXICO

AUGUST 24 THROUGH 28, 1992

Prepared by:



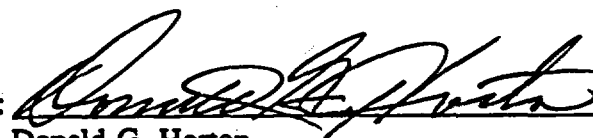
Date: 7/24/92

Frank J. Kratzinger

Audit Team Leader

Yucca Mountain Quality Assurance Division

Approved by:



Date: 7/28/92

Donald G. Horton

Director

Office of Quality Assurance

9208110232 920929
PDR WASTE
WM-11 PDR

ENCLOSURE

1.0 SCOPE

This audit, performed by a team of auditors from the Yucca Mountain Quality Assurance Division (YMQAD), will evaluate the Sandia National Laboratories (SNL) Quality Assurance (QA) Program to determine whether it meets the requirements and commitments imposed by the Office of Civilian Radioactive Waste Management (OCRWM). This will be done by verifying implementation and effectiveness of the system in place, as well as verifying compliance with requirements.

In addition to a follow-up on any open Corrective Action Requests, a representative sample of discrepancies identified during previous QA audits and surveillances of SNL will be included in the scope of this audit to determine the effectiveness of SNL corrective actions.

The programmatic and technical elements to be audited during this limited scope audit are identified in Section 4.0 of this plan.

2.0 AUDIT SCHEDULE

Pre-Audit Team/Observer Meeting	8:30 a.m., August 24, 1992 Albuquerque, New Mexico
Pre-Audit Conference	9:30 a.m., August 24, 1992 Albuquerque, New Mexico
Audit Activities	10:30 a.m. to 4:00 p.m. August 24, 1992 8:00 a.m. to 4:00 p.m. August 25 - 27, 1992 8:00 a.m. to 10:30 a.m. August 28, 1992
Post-Audit Conference	11:00 a.m., August 28, 1992 Albuquerque, New Mexico

There will be a daily audit team/observer meeting starting at 4:00 p.m., and a daily audit team/observer/SNL meeting starting at 8:30 a.m. to discuss potential deficiencies and establish needed liaison.

3.0 REQUIREMENTS TO BE AUDITED AND APPLICABLE REFERENCES

The requirements to be audited will be contained in the programmatic and technical checklists. These checklists will be developed from the latest available revision of the following documents:

- o SNL Quality Assurance Program Description Document and implementing procedures
- o Applicable Yucca Mountain Site Characterization Project Office Administrative Procedures-Quality

The conduct of the audit will be guided by the documents (latest revision) listed below:

- o Quality Assurance Administrative Procedure (QAAP) 18.2, "Audit Program"
- o QAAP 16.1, "Corrective Action Request"
- o Yucca Mountain Site Characterization Project Audit Observer Inquiry
- o Policy for Participation of State, Tribal and U.S. Nuclear Regulatory Commission Representatives as Observers on U.S. Department of Energy Audits, dated July 14, 1987

4.0 ACTIVITIES TO BE AUDITED

Programmatic Elements:

- 3.0 Design Control
- 5.0 Instructions, Procedures, Plans, and Drawings
- 6.0 Document Control
- 17.0 Quality Assurance Records
- 19.0 Computer Software
- 20.0 Scientific Investigations

Those program elements (9.0, 10.0, 13.0, and 14.0) not audited during OQA audits YMP-92-03 and YMP-92-09 due to no activity, were also considered but there has been no change in the status of these program elements.

Technical Areas

WBS Number	Title
1.2.1.3.1	Site and Engineering Data Base
1.2.1.4.7	Supporting Calculations for Post Closure Performance Analyses
1.2.4.2.1.2	Rock Mass Analyses
1.2.4.2.3.2	Exploratory Studies Facility Design - Far Field Thermal and Structural Analyses

If the audit team identifies a need to verify additional programmatic or technical areas during the audit, they will be added to the audit checklists and verified accordingly.

5.0 AUDIT TEAM MEMBERS

Frank J. Kratzinger - Audit Team Leader, Science Applications International Corporation
(SAIC)/YMQAD, Las Vegas, Nevada
Neil Cox - Auditor, SAIC/YMQAD, Las Vegas, Nevada
Gerard Heaney - Auditor, SAIC/YMQAD, Las Vegas, Nevada
Cynthia H. Prater - Auditor, SAIC/YMQAD, Las Vegas, Nevada
Kenneth T. McFall - Lead Technical Specialist, SAIC/YMQAD, Las Vegas, Nevada
Keith M. Kersch - Technical Specialist, SAIC, Las Vegas, Nevada
William R. Sublette - Technical Specialist, SAIC, Las Vegas, Nevada

6.0 AUDIT CHECKLISTS

The following checklists will be used during this audit:

YMP-92-22-01, Programmatic Checklist
YMP-92-22-02, Technical Checklist



Department of Energy
Yucca Mountain Site Characterization
Project Office
P. O. Box 98608
Las Vegas, NV 89193-8608

WBS 1.2.9.3

JUL 29 1992

Richard L. Bullock
Technical Project Officer
for Yucca Mountain
Site Characterization Project
Raytheon Services Nevada
101 Convention Center Drive
Phase II, Suite P-250
Las Vegas, NV 89109

*Cy to
Hooks
Bullock
S. Traylor, IRM*

EVALUATION OF RESPONSE TO UNSATISFACTORY VERIFICATION FOR CORRECTIVE ACTION
REQUEST (CAR) YM-92-025 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE
DIVISION (YMQAD) AUDIT YMP-92-11 OF RAYTHEON SERVICES NEVADA

The YMQAD staff has evaluated the response to unsatisfactory verification
for CAR YM-92-025. The response has been determined to be satisfactory.
Verification of completion of the corrective action will be performed
within 10 working days.

If you have any questions, please contact either Robert B. Constable at
794-7945 or Mario R. Diaz at 794-7974.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-4656

Enclosure:
CAR YM-92-025

cc w/encl:
K. R. Hooks, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
M. J. Regenda, RSN, Las Vegas, NV
N. J. Brogan, SAIC, Las Vegas, NV

cc w/o encl:
J. W. Gilray, NRC, Las Vegas, NV

**OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.**

8 CAR NO.: YM-92-025
DATE: 03/13/92
SHEET: 1 OF 2
QA

CORRECTIVE ACTION REQUEST

1 Controlling Document FP-02-01, Rev. 0; FP-02-02, Rev. 0; FP-02-08, Rev. 0		2 Related Report No. Audit YMP-92-11	
3 Responsible Organization RSN		4 Discussed With M. Regenda/J. Rue	
5 Requirement: FP-02-02, Rev. 0, Paragraph 6.1 states in part "Position Descriptions - Human Resources shall, with assistance from the supervisors and/or managers, develop position descriptions for all personnel who perform quality affecting activities". Paragraph 6.2 states in part "Personnel Qualification Evaluation - The Manager, Human Resources shall verify the education and experience of employees prior to their performing quality affecting activities. Attachment 1 will be used to certify that this verification has been completed. Each manager or supervisor shall compare the education and experience of the employee against the education and background experience requirements established for the position. The managers or supervisors will certify that requirements have been met in the format specified in Attachment 1."			
6 Adverse Condition: Documented evidence of some elements of indoctrination and training required by implementing procedures are missing in the record files. The record files of the following personnel did not contain documented evidence of one or more of the requirements described in block 5 above: J. McNeely R. Strote C. Anderson C. Herrington C. Clark E. Wasson J. Hansen All of these personnel have been authorized to perform quality affecting work prior to March 3, 1992.			
9 Does a significant condition adverse to quality exist? Yes ___ No <u>X</u> If Yes, Circle One: A B C		10 Does a stop work condition exist? Yes ___ No <u>X</u> ; If Yes - Attach copy of SWO If Yes, Circle One: A B C D	
11 Response Due Date: 20 days after issue			
12 Required Actions: <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Extent of Deficiency <input checked="" type="checkbox"/> Preclude Recurrence <input checked="" type="checkbox"/> Root Cause Determination			
13 Recommended Actions: Identify the remedial action to be taken to correct the deficiency noted in block 6. Identify the cause of the condition and the planned corrective action to prevent recurrence.			
7 Initiator M. Diaz <i>Mario Diaz</i> Date <u>3-13-92</u>		14 Issuance Approved by: QADD <i>R.C. Spence</i> Date <u>3/16/92</u>	
15 Response Accepted QAR <i>Mario Diaz</i> Date <u>4-16-92</u>		16 Response Accepted QADD <i>R.C. Spence</i> Date <u>5/4/92</u>	
17 Amended Response Accepted QAR _____ Date _____		18 Amended Response Accepted QADD _____ Date _____	
19 Corrective Actions Verified QAR _____ Date _____		20 Closure Approved by: QADD _____ Date _____	

ENCLOSURE

OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

8 CAR NO.: YM-92-025
DATE: 03/13/92
SHEET: 2 OF 2
QA

CORRECTIVE ACTION REQUEST (Continuation Page)

5 Requirements (continued)

PF-02-01, Rev. 0, Paragraph 6.1.2, states in part "Prior to performing any quality affecting activity, the employee shall be indoctrinated as a minimum to the following:

- o Project level plans
- o Job responsibilities and authority
- o The Quality Assurance Requirements Document (QARD)"

PF-02-08, Rev. 0, Paragraphs 6.11.1, 6.11.2, and 6.11.2.13 state in part "Current certification records of Level II, and Level III employees shall be maintained by the examiner. The certification shall include as a minimum ... Training Records."

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U.S. DEPARTMENT OF ENERGY
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8 CAR NO.: YM-92-025
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QA

CORRECTIVE ACTION REQUEST (Continuation Page)

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RSN Response: Reference discrepancy to PP-02-02, Rev. 0

Remedial Action - Job Descriptions (JD) and Personnel Qualification Evaluations (PQE) will be obtained for personnel without this documentation in their files.

Extent of Deficiency - Individuals that are lacking JDs and PQEs have been identified, RSN/YMP Management is in the process of developing YMP oriented JDs, and RSN Human Resources is verifying the education and experience of these individuals working on the YMP.

Preclude Recurrence - This is a one time occurrence and prior to start of work on the YMP, each individual will have a JD and PQE in place.

Root Cause Determination - JDs and PQEs were not developed for the YMP project matrix personnel because they were overlooked when these documents were developed for assigned project personnel.

Reference discrepancy to PP-02-01, Rev. 0

Remedial Action - The requirements for indoctrination to the Project Level Plans and the Quality Assurance Requirements Document (QARD) do not relate to the work to be accomplished by RSN. The RSN personnel accomplish their work to the RSN Quality Assurance Program Description (QAPD). Procedure Interim Change 3 to Project Procedure PP-02-01, Revision 0, deleting these items was issued and became effective on March 5, 1992. There will be no further action taken regarding this matter. Job responsibility and authority indoctrination will be included in the files for all personnel working on the YMP for which this is a requirement.

Extent of Deficiency - All personnel required to have this indoctrination did not have documentation in their files.

Preclude Recurrence - The Managers are being made aware that the documentation of an indoctrination on job responsibilities and authority is part of the training and indoctrination process.

Root Cause Determination - The requirement for documentation of an indoctrination on job responsibilities and authority was not implemented properly after being entered into the procedure.

After del 4/10/92 - RSN-YMP-1327

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U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

CAR NO. YM-92-025
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QA

CORRECTIVE ACTION REQUEST (Continuation Page)

Reference discrepancy to PP-02-08, Rev. 0

Remedial Action - The procedure will be revised to delete the requirement for the examiner to maintain training records. The training records are maintained by the RSN YMP Project Office.

Extent of Deficiency - There has been only one (1) person involved in this activity.

Preclude Recurrence - The procedure will be revised.

Root Cause Determination - The requirement for the examiner to maintain training records was overlooked at the time the certification was being done.

Estimate Completion Date: 06/12/92

Responsible Individual:

R. L. Schreiner
R. L. Schreiner
Manager, Systems Engineering

Response Approval:

M. Wilson
for R. L. Bullack

Date:

4-10-92

Yucca Mountain Project
101 Convention Center
Suite P-250
Las Vegas NV 89109

Raytheon

RSN-YMP-554

WBS 1.2.9.1

QA

QA RECEIVED

JUL 22 1992

July 16, 1992

R. E. Spence
Director, Quality Assurance Division
Yucca Mountain Site Characterization
Project Office
U. S. Department of Energy
P. O. Box 98608
Las Vegas, Nevada 89193-8608

CORRECTIVE ACTION REPORT (CAR) YMP-92-025 (AUDIT YMP-92-11)

In response to your letter YMQAD:RBC-4299, dated July 6, 1992, the documented evidence of job responsibilities and authority indoctrination, and the Personnel Qualification Evaluations have been received by the Raytheon Services Nevada (RSN) Training Group. These documents are now in the files in question.

If there are any questions regarding this matter, please call R. L. Schreiner at 794-7071.

R. L. Bullock

R. L. Bullock
Yucca Mountain Operations Manager

RLB:JLR:jmp

cc: M. R. Diaz, DOE
D. L. Lockwood
R. L. Schreiner
J. L. Rue
H. W. Booth
M. J. Regenda
D. J. Tunney
A. All
YMP File
Log Copy
RMC

DIVISION

CC:

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REC'D IN YMP

7/20/92