

U.S. DEPARTMENT OF ENERGY

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

OFFICE OF QUALITY ASSURANCE

AUDIT REPORT

OF

REYNOLDS ELECTRICAL AND ENGINEERING COMPANY, INCORPORATED

AUDIT NUMBER YMP-92-04

CONDUCTED NOVEMBER 18 THROUGH 20, 1991

Prepared by: Robert H. Klemens Date: 12/3/91  
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Yucca Mountain Quality Assurance Division

Approved by: D. G. Horton Date: 12/9/91  
Donald G. Horton  
Director  
Office of Quality Assurance

## EXECUTIVE SUMMARY

This report contains the results of the U.S. Department of Energy Office of Civilian Radioactive Waste Management (OCRWM) Audit No. YMP-92-04 of Reynolds Electrical and Engineering Company, Incorporated (REECO) that was conducted in Las Vegas, Nevada on November 18 through 20, 1991. A team from the Yucca Mountain Quality Assurance Division of the Office of Quality Assurance conducted a limited scope audit to evaluate REECO's implementation of the OCRWM Quality Assurance (QA) program to determine whether it meets the requirements and commitments imposed by OCRWM. This was done by verifying implementation and effectiveness of the system in place, as well as verifying compliance with requirements.

The program elements 3, 5, 6, 17, 19, and 20 were considered during the planning of the audit. Program elements 5 and 6 were eliminated from the audit since REECO Audit Finding Reports have been written as the result of REECO internal audits of these elements which required extensive rewriting of procedures as their corrective action. Program elements 3, 19, and 20 were not audited since REECO has no activities to which these elements apply.

Program Element 17, "Quality Assurance Records," was the only activity audited for implementation of procedural requirements. The documents reviewed during the audit indicated that the requirements of the procedures were found to be satisfactory and effectively implemented.

The audit team noted a significant improvement in the submittal and processing of QA records at the Local Records Center.

The audit team verified implementation of the correction action response to Corrective Action Request (CAR) Number YM-91-026. At the time of the audit, YM-91-026 was the only CAR against REECO.

## 1.0 INTRODUCTION

This report contains the results of the U.S. Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) Audit Number YMP-92-04 of Reynolds Electrical and Engineering Company, Incorporated (REECo) conducted in Las Vegas, Nevada on November 18 through 20, 1991. The audit was conducted in accordance with the approved Audit Plan (Reference: Letter dated October 16, 1991, Horton to Pritchett).

## 2.0 AUDIT SCOPE

A team from the Yucca Mountain Quality Assurance Division (YMQAD) of the Office of Quality Assurance (OQA) conducted a limited scope audit to evaluate REECo's implementation of OCRWM Quality Assurance (QA) program to determine whether it meets the requirements and commitments imposed by the OCRWM. This was done by verifying implementation and effectiveness of the system in place, as well as verifying compliance with requirements.

Corrective Action Request (CAR) YM-91-026 identified during the previous YMQAD Audit 91-02 was evaluated for closure during the audit. Based on objective evidence reviewed, the audit team recommends closing CAR YM-91-026.

The programmatic element 17.0, "Quality Assurance Records," was the only element evaluated during this audit.

The following programmatic elements were considered during the development of the audit scope and determined to be not applicable since REECo has no activities for which these elements apply:

- 3.0 Design Control
- 19.0 Computer Software
- 20.0 Scientific Investigations

The following programmatic elements were eliminated from the audit since REECo Audit Finding Reports have been written as the result of REECo internal audits which required extensive rewriting of procedures as their corrective action:

- 5.0 Instructions, Procedures, and Drawings
- 6.0 Document Control

### 3.0 AUDIT TEAM PERSONNEL AND OBSERVERS

<u>Responsibility</u>	<u>Individual</u>
Audit Team Leader	Robert H. Klemens
Auditors	Amelia I. Arceo Frank J. Kratzinger
Observer	John Gilray U.S. Nuclear Regulatory Commission (NRC)

### 4.0 AUDIT MEETINGS AND PERSONNEL CONTACTED

#### 4.1 Pre-audit Conference

A pre-audit conference with the REECo Technical Project Officer and his staff was conducted at 10:00 a.m. on November 18, 1991. The purpose, scope, and proposed agenda for the audit were presented, and the auditors and observers were introduced. A list of attendees is attached as Enclosure 1.

#### 4.2 Persons Contacted During the Audit

See Enclosure 1 for a list of persons contacted during the audit.

#### 4.3 Post-Audit Conference

The post-audit conference was conducted at 10:00 a. m. on November 20, 1991. A list of attendees is attached as Enclosure 1.

### 5.0 SUMMARY OF AUDIT RESULTS

#### 5.1 Statement of Program Effectiveness

REECo is satisfactorily implementing Programmatic Element 17.0, "Quality Assurance Records," in accordance with REECo Quality Assurance Program Plan and implementing procedures.

#### 5.2 Corrective Action Requests

No CARs were issued as a result of this audit. However, verification of corrective action for CAR YM-91-026, issued as a result of OQA

Audit No. YMP-91-02, was performed and the audit team recommends that this CAR be closed. At the time of the audit, YM-91-026 was the only open CAR against REECo.

5.3 Corrective Action Taken During the Audit

One Training Requirement Form (TRF) was completed without the revision number of the assigned required reading. The revision number was completed, initialed and dated by the responsible manager and the trainee, and resubmitted as a corrected document by the training personnel to the Local Records Center. A review of other TRFs revealed that this was as an isolated case.

5.4 Audit Details

For details of items and activities examined during the audit, see Enclosures 2 and 3.

ENCLOSURE 1

PERSONNEL CONTACTED DURING THE AUDIT

<u>NAME</u>	<u>ORGANIZATION</u>	<u>TITLE</u>	<u>PRE- AUDIT</u>	<u>CONTACTED DURING AUDIT</u>	<u>POST AUDIT</u>
M. C. Barker	REEC0	Training Admin.	X	X	X
Jim Blaylock	DOE/YMP	General Engr.			X
Bruce Gardella	REEC0	Department Mgr.	X		X
W. S. Glasser	REEC0	QA Manager	X	X	X
John Gilray	NRC	On-Site Rep.	X		X
D. A. Hackbert	REEC0	Sr. QA Specialist	X	X	X
T. M. Leonard	REEC0	Const. Dept. Manager			X
K. L. Limon	REEC0	IMD Manager	X		X
C. J. Mason	REEC0	Drilling Dept. Mgr.	X		X
M. D. Moulder	REEC0	Sr. Staff Asst.	X	X	X
Bambi Nietsch	REEC0	LRC Supervisor	X	X	X
R. F. Pritchett	REEC0	YMP Division Manager	X	X	X
E. S. Reiter	REEC0	Sr. QA Specialist	X	X	X
R. R. Rommel	REEC0	Project Engineer	X		
S. O. Straub	REEC0	Log. Spt. Dept. Mgr.	X	X	X
David Warriner	REEC0	LRC Manager	X	X	X
S. A. Ziehm	REEC0	Sr. Staff Asst.	X		X

ENCLOSURE 2

DETAILS OF AUDIT YMP-92-04  
CRITERION 17

1. GENERAL

Several records were reviewed to verify compliance with REECO's implementing procedures QP 17.0, Revision 4, "Quality Assurance Records," and IM-LRC-IP-01, Revision 0, Yucca Mountain Project Records Management. The records reviewed are listed on Enclosure 3.

Twelve procedures were reviewed and it was verified that the types of QA records were specified and stated in the procedures. Thirty-five records/record packages were reviewed and it was verified that the documents were handled in accordance with the above implementing procedures. In addition, it was verified that the records were legible, identified properly, accurate, complete, reproducible, microfilmable, and contained appropriate information as to the activity to which it applied. The records requested were retrieved in a timely manner.

The QA Records Authentication Lists at the Local Records Center (LRC) and the Project Quality Assurance Manager's office were verified. The Records Authentication List contains the name of the Records Administrator for each of the departments within REECO.

The records are stored in file cabinets at REECO's facility at the Valley Bank Center and are protected from damage, deterioration, or loss prior to the time that they are sent to the LRC. At the LRC, the records are stored in a vault with a two-hour fire rating. A copy of the records are kept in the vault until a receipt from the Central Records Facility is received.

It was verified that each record has a unique number assigned to it and that the number is not repeated.

It was verified that the REECO index system provides a reference as to the type of document and that the records identification system was approved by the YMPO in 1988, as required.

Audits and surveillances of the records management activities were performed and REECO's record handling personnel were trained and qualified to meet records management requirements.

## 2. VERIFICATION OF CORRECTIVE ACTION

### 1.0 Deficiency

CAR No. YM-91-026 "Records of Personnel Qualification Evaluations, Indoctrination, Training, and Proficiency Evaluations have not been transmitted to the LRC for processing."

### 2.0 Remedial Actions

A list of REECo personnel who had been previously qualified according to their position descriptions was provided to the Auditors. The list identified the personnel who were requalified and those whose qualifications were withdrawn because they did not perform quality-affecting activities. From the list, the auditors selected 13 names (see Enclosure 3 for the list of names) and verified that personnel qualification/training record packages were submitted to the LRC. Duplicates of the record packages were verified at the training department. Training records are being accumulated by the training personnel after the training record packages were submitted to the LRC. These accumulated records will be submitted to the LRC annually or upon completion of the job.

### 3.0 Corrective Action to Prevent Recurrence

The Memorandum from K.L. Johnson (Legal Department) to S.O. Straub dated 3/20/91 regarding "YMP Training Records", and Memorandum from S.O. Straub to Distribution dated 4/11/91 regarding "Submittal of YMP Training Records to LRC" were reviewed. Both documents provided the written guidance by the Logistical Support Department Manager (the training personnel are under his purview) as to the provision of Privacy Act, DOE-80.

ENCLOSURE 3

OBJECTIVE EVIDENCE REVIEWED  
REECO AUDIT YMP-92-04

PLANS

REECO Quality Assurance Program Plan, 568-DOC-115, Revision 8

PROCEDURES

QP 17.0, R4, Quality Assurance Records  
QP 2.2, R5, Personnel Qualification and Certification  
QP 2.4, R2, QPCN No. 91-12, Indoctrination and Training  
IM-LRC-IP-01, R0, Yucca Mountain Project Records Management  
DD-IP-02, R0, Control of Measuring and Test Equipment  
MOE-IP-602, R2, Handling, Shipping, and Storage of YMP Equipment  
MQA-IP CP-DIM-5, R2, Calibration of Inside Micrometers, One-Inch  
MQA-IP CP-DIM-17, R2, Calibration of Height Setting Master  
MQA-IP CP-DIM-27, R2, Calibration of Gage Block Comparator  
MQA-IP CP-FOR-3, R2, Calibration of Spring Tester  
MQA-IP CP-PRES-5, R1, Calibration of Temperature & Pressure Relief Valve  
MQA-IP CP-TORQ-1, R2, Calibration of Click-Type Torque Wrench  
QP 4.0, R6, Procurement Document Control  
QP 7.0, R6, Control of Purchased Materials, Equipment and Services  
QP 12.0, R6, Control of Measuring and Test Equipment  
QP 2.1, R4, Certification of Inspection and Test Personnel

RECORD/RECORD PACKAGE

REO 11748	REO 11833	REO 11921	REO 11995	REO 12076
REO 12143	REO 12275	REO 12276	REO 12296	REO 12401
REO 12422	REO 12470	REO 12497	REO 12524	REO 12561
REO 12591	REO 12616	REO 12654	REO 12681	REO 12784
REO 12809	REO 12842	REO 12866	REO 12903	REO 12927
REO 12966	REO 12986	REO 13037	REO 13081	REO 13113
REO 13135	REO 13171	REO 13202	REO 13221	REO 13238

AUDITS/SURVEILLANCES

Audit REECO 005-91  
Surveillance SR-REECO-021  
Surveillance SR-REECO-022

TWO-HOUR FIRE RATED VAULTS

DOE Inventory No. R 197185  
DOE Inventory No. R 707350

PERSONNEL QUALIFICATION RECORD PACKAGES

Catheryn Davenport  
William J. Glasser  
Crystal L. Hail  
Clark A. Hazlett  
James R. Joyce

Marjorie D. Moulder  
Bambi Nietsch  
Robert F. Pritchett  
Trudie L. Rainey

Emily S. Reiter  
Michael T. Stethen  
Marjorie R. Watson  
David R. Warriner

MISCELLANEOUS

Signature Authorization Lists  
Approval of REECO's record identification system-Letter YMP:KKH-217 dated  
11/9/88.