



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

WBS 1.2.9.3
QA

JUN 24 1991

Robert F. Pritchett
Technical Project Officer
for Yucca Mountain
Site Characterization Project
Reynolds Electrical &
Engineering Co., Inc.
P.O. Box 98521
Las Vegas, NV 89193-8521

VERIFICATION OF CORRECTIVE ACTIONS AND CLOSURE OF CORRECTIVE ACTION
REQUESTS (CARS) YM-91-031 AND YM-91-034 RESULTING FROM YUCCA MOUNTAIN
QUALITY ASSURANCE DIVISION (YMQAD) AUDIT 91-02 OF REYNOLDS ELECTRICAL &
ENGINEERING CO., INC.

The YMQAD staff has verified the corrective actions to CARs YM-91-031 and
YM-91-034 and determined the results to be satisfactory. As a result, the
CARs are considered closed.

If you have any questions, please contact Catherine E. Hampton at 794-7973 or
Amelia I. Arceo at 794-7737.

Catherine Hampton for
Donald G. Horton, Director
Yucca Mountain Quality Assurance Division

YMQAD:CEH-4385

Enclosures:

1. CAR YM-91-031
2. CAR YM-91-034

cc w/encls:

K. R. Hooks, NRC, Washington, DC ←
S. W. Zimmerman, NWFO, Carson City, NV
W. J. Glasser, REECo, Las Vegas, NV

cc w/o encls:

J. W. Gilray, NRC, Las Vegas, NV
N. J. Brogan, SAIC, Las Vegas, NV, 517/T-08

YMP-5

9107020108 910624
PDR WASTE
WM-11 PDR

add: K.Hooks 44-3

102.7
WM-11
NH03

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

14CAR NO.: YM-91-031
DATE: 03.17/91
SHEET: 1 OF 2
QA
WBS No.: 1.2.9.3

CORRECTIVE ACTION REQUEST

1 Controlling Document
QP 5.1, and QP 5.3

2 Related Report No.
AUDIT NO. 91-02

3 Responsible Organization
REECo

4 Discussed With
R. Lykens and S. Archuleta

10 Response Due
30 Days After Issue

11 Responsibility for Corrective Action
R. F. Pritchett

12 Stop Work Order Y or N
No

5 Requirement:

QP 5.1, Rev. 2, Para. 6.1.3.3 and QP 5.3, Rev. 1, Para. 6.3.4 state, "The organization developing the procedures shall assure that the procedure being developed does not conflict with existing procedures and, if so, that such conflicts are resolved."

QP 5.1, Rev. 2, Para. 6.3.2.4 states, "Procedures shall be reviewed for possible revisions at least annually as a minimum."

6 Adverse Condition:

No objective evidence of compliance with the above referenced requirements was available.

7 Recommended Action(s):

Identify the remedial action(s) to be taken to correct the deficiencies noted in Block 6. Investigate the program process, activities or documentation to determine the extent and depth of similar deficient conditions on the CAR. Identify these deficiencies and provide the

8 Initiator
A. E. Cocoros 02/26/91

9 Severity Level -
1 2 3

13 Approved By:
OOA *Catharine Humpal* 3/8/91

15 Verification of Corrective Action:

See attached verification of corrective action.
Quarles 6/18/91

16 Corrective Action Completed and Accepted:
OAR *Annelis J. Greer* Date *6/18/91*

17 Closure Approved By:
OOA *Catharine Humpal* 6/18/91

**OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
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WASHINGTON, D.C.**

CAR NO.: YM-91-031
DATE: 03/07/91
SHEET: 2 OF 2

**CORRECTIVE ACTION REQUEST
(continuation sheet)**

7 Recommended Action(s) (continued)

measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

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WASHINGTON, D.C.

CAR NO. YM-91-031
DATE: 04-12-91
SHEET: 1 OF 4

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION RESPONSE: CAR YM-91-031

1. CORRECTIVE ACTION FOR DEFICIENT CONDITION # ALL

DISCUSSION:

The statement from QPs 5.1 and 5.3, that organizations developing procedures, assure that conflicts do not exist with other procedures is a guideline that needs to be considered when reviewing a procedure, but not necessarily documented. There are other guidelines that must be considered in generating a procedure which are contained in the same sections of QP 5.1 and 5.3. Part of the process of reviewing and approving procedures is that knowledgeable (i.e., of the requirements) and appropriately trained personnel are utilized.

In addition, QP 5.0, Instructions, Procedures And Drawings, ¶ 6.3.1.1 states in part;

"... shall be distributed to other organizations for review and comment, as applicable, when created and when revised for *both technical adequacy and compliance with QA requirements* (emphasis added), as required by QP 6.0."

Objective evidence is available and attached to demonstrate that this conflict guideline has been considered in the review of procedures.

Based on the above discussion and attached documentation, REECO/YMP considers that no further corrective action is required for this portion of CAR YM-91-031.

Response Approved: Bruce Gordella For R.F.P. 4/12/91
Responsible Manager Date

RESPONSE ACCEPTED: N/A _____
IQAR Date

RESPONSE ACCEPTED: N/A _____
OQA Date



Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT
DOCUMENT REVIEW RECORD

CAR NO. YM-91-031
 DATE: 04-12-91
 PAGE: 2 of 4

Document Reviewed: DD-IP-01 Rev. 1 Page 1 of 1
 Document Title: Handling, Storage And Shipping

Document is Satisfactory _____ Document is Unsatisfactory X

REVIEWED BY:
D.A. Hackbert D. A. Hackbert 01/29/91
Signature Name (type or print legibly) Date

Organization REECO YMP Quality Assurance

Complete the above portion of this document. Review the document provided for compliance with procedures, specifications, technical and quality requirements. Justification shall be provided for all comments. The reviewers signature signifies the requested review has been completed. Where there are no comments, state "No Comments" in the Comment And Justification Section.

COMMENT AND JUSTIFICATION	ACTION TAKEN
1. Section 6.1 does not address the Inspection and Testing of Special Tools and Equipment as required by the QAPP, Section XIII, ¶ 1.3 or QP 13.0, ¶ 6.1.2.1.	
2. Section 6.2.4 does not address that Storage Criteria may also be obtained from Design Specifications or the Purchase Order as required by QP 13.0, ¶ 6.2.4.	
3. Section 6.2.5 does not address that Storage Areas must be provided with adequate drainage as required by QP 13.0, ¶ 6.2.5.	
4. The procedure does not cover implementation of Care and Maintenance Instructions as required by QP 13.0, Section 6.6.	
5. Section 7.0 needs to be updated to include those QA Records that will be generated based on the comments above.	
6. Change ^{your YMP} references to "Yucca Mountain Site Characterization Project" (see DRAFT) <u>1/29/91</u>	

COMMENTS APPROVED:
 Department Manager: PQA MONO A. FOX *[Signature]* 1/29/91
Organization Printed Name Signature Date

All comments have been resolved:
 Author: _____ Date: _____



Reynolds Electrical & Engineering Co., Inc.
YUCCA MOUNTAIN PROJECT
DOCUMENT REVIEW RECORD

CAR NO. YM-91-031
 DATE: 04-12-91
 PAGE: 3 of 4

Document Reviewed: DD-IP-02 Rev: 1 Page 1 of 1

Document Title: Control of Measuring And Test Equipment

Document is Satisfactory _____ Document is Unsatisfactory XXX

REVIEWED BY:

Signature

D. A. Hackbert

Name (type or print legibly)

02/12/91

Date

Organization RECo YMP Quality Assurance

Complete the above portion of this document. Review the document provided for compliance with procedures, specifications, technical and quality requirements. Justification shall be provided for all comments. The reviewer's signature signifies the requested review has been completed. Where there are no comments, state "No Comments" in the Comment And Justification Section.

COMMENT AND JUSTIFICATION

ACTION TAKEN

- Section 6.1.9 does not fully address the requirements of QP 12.0 ¶ 6.3.5. Paragraph 6.3.5 requires an "evaluation be performed" when "M&TE is found out of calibration", not just when the M&TE is found "unacceptable for use" as stated in DD-IP-001, ¶ 6.1.9. The Drilling Department should consider addressing the use of Form RE-0698 (7/88), "Out Of Tolerance Notification" in this procedure (copy attached). Quality Systems has a "Draft" procedure QA-12.2, Control of Measuring & Test Equipment (User Organizations) which will address this Form (RE-0698).

COMMENTS APPROVED:

Department Manager: YMP QA
 Organization

H. A. Fox
 Printed Name

Signature

2-13-91
 Date

All comments have been resolved:

Author: _____ Date: _____



**YUCCA MOUNTAIN PROJECT
DOCUMENT REVIEW RECORD**

Document Reviewed: IM-LRC-IP-01 Rev: 1 Page 1 of 1

Document Title: Yucca Mountain Project Records Management

Document is Satisfactory _____ Document is Unsatisfactory XXX

REVIEWED BY:

[Handwritten Signature]

Signature

D. A. Hackbert

Name (type or print legibly)

03/12/91

Date

Organization RECo YMP Quality Assurance

Complete the above portion of this document. Review the document provided for compliance with procedures, specifications, technical and quality requirements. Justification shall be provided for all comments. The reviewers signature signifies the requested review has been completed. Where there are no comments, state "No Comments" in the Comment And Justification Section.

COMMENT AND JUSTIFICATION

ACTION TAKEN

1. QP 5.3, ¶ 1.2, states in part, "The purpose of an Implementing Procedure (IP) is to provide direction for department peculiar activities which are not addressed in quality procedures." Sections 5.1, 5.3, 5.4, 5.5, 5.6, 6.1, 6.2, 6.3, 6.4 and 6.5 of IM-LRC-IP-01, contain instructions that pertain to departments other than the Information Management Office. It is recommended that those sections of IM-LRC-IP-01 that apply to other departments be included in QP 17.0. Only those IMO specific activities should be included in the IP.
2. QP 5.3, ¶ 5.1, states in part, "Department Managers are responsible for ... approving Implementing Procedures for activities performed by their department ...". IM-LRC-IP-01 indicates that the TPO is the approving authority, not the Department Manager as required by the QP.

COMMENTS APPROVED:

Department Manager: YMP QA W. J. Glasser *[Handwritten Signature]* 3.15.91
Organization Printed Name Signature Date

All comments have been resolved:

Author: _____ Date: _____

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

CAR NO. YM-91-031
DATE: 04-12-91
SHEET: 1 OF 1

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION RESPONSE: CAR YM-91-031

1. CORRECTIVE ACTION FOR DEFICIENT CONDITION # ALL

A. Extent of Deficiency:

All Quality Procedures and most Implementing Procedures may not have had an annual review as required by QPs 5.1 and 5.3.

B. Root Cause:

1. The cause of the missed annual review of procedures was an overly restrictive internal requirement, no clear requirement to document the review and a lack of management attention to detail.

C. Remedial Actions: (Item #1 To Be Completed By 05/31/91)

1. As there is no higher tier requirement for the annual review, QP 5.1 and 5.3 will be revised to delete the annual review requirement as it is presently stated. However, as a good business practice, a review will be performed every three (3) years to be consistent with REECO Company Policy 5.1.2. A revision to a procedure during the three year period will be considered as meeting the review requirement and a new three year period starts. This review will be documented.
2. YMP QA conducted a review on 04/05/91 to identify those QPs and IPs which are greater than three (3) years old. All existing QP or IP procedures are currently less than three years old and none will come due for review until 1992.

D. Corrective Action to Prevent Recurrence: (Actions To Be Completed By 05/31/91)

1. Revise QPs 5.1 and 5.3 to clarify when a review needs to be performed.
2. Appropriate personnel will be indoctrinated on the changes to QP 5.1 and 5.3.

Response Approved: _____

Bruce Gardula For R.F.P.
Responsible Manager

4/12/91
Date

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

CAR NO. YM-91-031
DATE: 04-23-91
SHEET: 1 OF 1

CORRECTIVE ACTION REQUEST
(continuation sheet)

AMENDED RESPONSE

CORRECTIVE ACTION RESPONSE: CAR YM-91-031

1. CORRECTIVE ACTION FOR DEFICIENT CONDITION # ALL

DISCUSSION:

The statement from QPs 5.1 and 5.3, that organizations developing procedures, assure that conflicts do not exist with other procedures is a guideline that needs to be considered when reviewing a procedure, but not necessarily documented. There are other guidelines that must be considered in generating a procedure which are contained in the same sections of QP 5.1 and 5.3. Part of the process of reviewing and approving procedures is that knowledgeable (i.e., of the requirements) and appropriately trained personnel are utilized.

In addition, QP 5.0, Instructions, Procedures And Drawings, ¶ 6.3.1.1 states in part;

"... shall be distributed to other organizations for review and comment, as applicable, when created and when revised for *both technical adequacy and compliance with QA requirements* (emphasis added), as required by QP 6.0."

Objective evidence is available and was attached to the original response to demonstrate that this conflict guideline has been considered in the review of procedures.

In order to prevent future ambiguity, QPs 5.1 and 5.3 will be revised by 05/31/91 to delete this requirement.

Response Approved: 127 Pritchett 4/23/91
Responsible Manager Date

RESPONSE ACCEPTED: Alleen 4/28/91
QAR Date

RESPONSE ACCEPTED: Cathy Hoopes for 4-26-91
QQA Date

Sta dtd 4/23/91 - 580-01-377

CAR YM-91-031

VERIFICATION OF CORRECTIVE ACTION

The Quality Procedures (QPs) Index, Revision 2, Dated 6/4/91 revealed that 5/26/89 was the oldest effective date of procedures.

QP 5.1, Revision 2, QPCN No. 91-04, Effective date 5/31/91 deleted paragraphs 6.1.3.3 and 6.3.2.4.

QP 5.3, Revision 1, QPCN 91-05, Effective date 5/31/91 deleted paragraphs 6.3.4.

Training Attendance Records (TARs) dated 5/23/91 and 5/28/91 on "Orientation on QP Changes" conducted by W. Glasser and D. Hackbert covered the above QPs. Verified that the TARs included the appropriate personnel from REECO YMP Organization: QA Office, Control Department, Construction Department, Drilling Department, Informaton Management Office, Logistical Support Department, and Matrix Organizations (QS, HR and OED).

Janet J. Arco
6/18/91

ORIGINAL
THIS IS A RED STAMP

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

14CAR NO.: YM-91-034
DATE: 3/7/91
SHEET: 1 OF 2
QA
WBS No.: 1.2.9.3

CORRECTIVE ACTION REQUEST

1 Controlling Document
QP 2.4

2 Related Report No.
Audit 91-02

3 Responsible Organization
REECo

4 Discussed With
R. Pritchett

10 Response Due
30 days after issue

11 Responsibility for Corrective Action
R.F. Pritchett

12 Stop Work Order Y or N
N

5 Requirement:
QP 2.4, Revision 1, Paragraphs 6.6.1 and 6.6.3 state, "The TPO shall periodically, annually as a minimum, initiate an evaluation of the overall training program for the REECo Yucca Mountain Project Division."

The TPO shall document the evaluation and include the following information:

- o Names of evaluators
- o Dates of evaluation
- o Scope of evaluation
- o Methodology
- o Results
- o Recommendations for changes, (if any) (Con't)

6 Adverse Condition:
Documented evidence of the overall training program evaluation for the years 1989 and 1990 does not exist.

7 Recommended Action(s):
Identify the remedial action(s) to be taken to correct the deficiencies noted in Block 6. Investigate the program process, activities or documentation to determine the extent and depth of similar deficient conditions on the CAR. (Con't)

8 Initiator
M. R. Diaz 2/27/91
Mario Diaz

9 Severity Level -
1 2 3

13 Approved By: Date:
OOA *Catherine H. [unclear]* 3-8-91

15 Verification of Corrective Action:
Verified that Quality Procedure QP 2.4, "Indoctrination and Training," was revised to delete paragraph 6.6. It is now Revision 2, dated 5/2/91.

The Quality Manager conducted a review training class with the TPO and YMP Dept. Managers. The memorandum dated 6/13/91 from W. J. Glasser to M. C Barker documented the training. The enclosures which documented the signed training materials from each trainee were attached to the above memo.

16 Corrective Action Completed and Accepted:
OAR *Anneli L. Arnes* Date 6/18/91

17 Closure Approved By:
OOA *Catherine H. [unclear]* 6/18/91

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

CAR NO.: YM-91-034
DATE: 3/7/91
SHEET: 2 OF 2

**CORRECTIVE ACTION REQUEST
(continuation sheet)**

5 Requirements (continued)

- o Signature of TPO

7 Recommended Action(s) (continued)

Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

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

CAR NO. YM-91-034DATE: 04-12-91SHEET: 1 OF 2

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION RESPONSE: CAR YM-91-034

1. CORRECTIVE ACTION FOR DEFICIENT CONDITION # ALL

A. Extent of Deficiency:

REECo has evaluated the identified adverse condition and has concluded that a separate, specific evaluation of the overall training program has never been implemented. However, a review of REECo's approved Quality Assurance Program Plan (568-DOC-115 revision 8) and DOE's Quality Assurance Requirements Document (DOE/RW-0214 revision 4) did not identify a requirement to conduct the assessment of training as a separate evaluation. The review did identify a requirement in DOE's Quality Assurance Requirements Document that the annual Management Assessment is to include Indoctrination and Training as one of the evaluation elements. This requirement is included in REECo's procedure for Management Assessment, QP 2.3. Although REECo management considered that the intent of the requirement had been met through REECo's Management Assessments, REECo does recognize that the requirement of QP 2.4 paragraph 6.6 for Training Program Evaluation had not been implemented.

B. Root Cause:

Management failed to recognize that when a procedure requirement is no longer applicable or does not describe the way an activity is currently being performed, then a change to the requirement must be initiated.

C. Remedial Actions: (All Actions To Be Completed By 06/15/91)

Since no specific requirement exists to perform separate, specific training evaluations, and since Indoctrination and Training is an element of the annual Management Assessment, a Quality Procedure Change Notice will be issued to delete paragraph 6.6 of QP 2.4 revision 1.

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

CAR NO. YM-91-034
DATE: 04-12-91
SHEET: 2 of 2

CORRECTIVE ACTION REQUEST
(continuation sheet)

CORRECTIVE ACTION RESPONSE: CAR YM-91-034 (Continued)

1. CORRECTIVE ACTION FOR DEFICIENT CONDITION # ALL

D. Corrective Action to Prevent Recurrence: (Actions To Be Completed By 06/15/91)

In order to ensure that REECO YMP Managers clearly understand the need to maintain procedures current with practice, the Quality Manager will conduct a review training with the TPO and YMP department managers. This review will be documented to the managers' training file.

Response Approved:	<u>Bruce Gardella For R.E.P.</u> Responsible Manager	<u>4/12/91</u> Date
RESPONSE ACCEPTED:	<u>Haino Lee</u> QAR	<u>4/19/91</u> Date
RESPONSE ACCEPTED:	<u>Catherine A. Langston</u> OQA	<u>4-22-91</u> Date