



Department of Energy

Washington, DC 20585

QA: L

JUL 18 1997

L. D. Foust, Technical Project Officer  
for Yucca Mountain Site  
Characterization Project  
TRW Environmental Safety Systems, Inc.  
1180 Town Center Drive, M/S 423  
Las Vegas, NV 89134

EVALUATION OF RESPONSE TO AND VERIFICATION OF CORRECTIVE ACTION AND  
CLOSURE OF DEFICIENCY REPORT (DR) LVMO-97-D-013

The Office of Quality Assurance staff has evaluated the response to and verified the corrective  
action for DR LVMO-97-D-013 and determined the results to be satisfactory. As a result, the  
DR is considered closed.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or  
Lawrence W. McGrath at (702) 734-0882.

*for* *R.W. Clark*  
Donald G. Horton, Director  
Office of Quality Assurance

OQA:JB-1930

Enclosure:  
DR LVMO-97-D-013

cc w/encl:  
T. A. Wood, DOE/HQ (RW-55) FORS  
J. O. Thomas, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City NV  
B. R. Justice, M&O, Las Vegas, NV  
R. A. Morgan, M&O, Las Vegas, NV  
A. M. Segrest, M&O, Las Vegas, NV  
Roberta Stambaugh, M&O, Las Vegas, NV

cc w/o encl:  
W. L. Belke, NRC, Las Vegas, NV  
L. W. McGrath, OQA/QATSS, Las Vegas, NV  
D. G. Sult, OQA/QATSS, Las Vegas, NV  
R. W. Clark, OQA/QATSS, Las Vegas, NV

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9707220312 970718  
PDR WASTE PDR  
WM-11



220083

Recip: Nmss/HLW

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

8  Performance Report  
 Deficiency Report  
NO. LVMC-97-DO13  
PAGE 1 OF  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:  
QAP-3-0/REV. 4 and QAP-3-12/ REV. 7

2 Related Report No.  
N/A

3 Responsible Organization:  
Waste Package Development (WPD)

4 Discussed With:  
Hugh Benton, Alden Segrest

5 Requirement/Measurement Criteria:  
QAP-3-0/REV. 4, paragraph 5.3, states that for design inputs, "the Design Organization shall:  
A. select design inputs through research, design experience, and analysis from one or more of the categories listed below:  
1. previously approved design inputs, which include classification analyses and requirements documents;  
2. codes, standards, DOE Orders, and results of previous design activities;  
3. supplier or manufacturer data;  
4. data collected during site characterization, which are included in the Technical Data Base;  
5. additional design inputs developed by the design organization....using QAP-3-5, QAP-3-9 or appropriate procedures; and  
6. inputs received via YAP-SIII.3Q (for site characteristics not yet in the Technical Data Base), QAP-3-12 or QAP-6-1."

6 Description of Condition:  
Contrary to the above, Waste Package Development (WPD) requested and received design input via an IOC rather than by approved methods for the following analysis:  
  
Determination of Waste Package Design Configurations (DI:BBAA00000-01717-0200-00017 REV 00C), design parameter listed under section 4.1. This included the specific MGDS commercial SNF assembly receipt scenarios identified in IOC VA.SALMF.01/97-001 (dated January 23, 1997). The IOC stated that the data set and models used were the best that were available at the time and were non-QA and unverified. Also, it was noted in the memo that "a few minor data errors have been discovered, and a few assumptions have changed slightly, which will be corrected in the next update."  
  
Per QAP-3-12/Rev. 7, which is the procedure that "establishes the process for request, control, receipt, and transmittal of Design Input," a Design Input Request should have been prepared. The Responsible Manager would then be required, whether the data is qualified or unqualified, respond via a Design Input Transmittal.

7 Initiator *R. M. Stambaugh*  
Roberta M. Stambaugh Date 04/15/97

9 Is condition an isolated occurrence?  
 Yes  No  Unknown; Must be Yes if PR

10 Recommended Actions: (Not required for PR)  
1. Identify where the data in the IOC was used in design (since the IOC also stated that the same data was provided to others within WPD).  
2. Determine impacts of errors and assumptions.  
3. Request information via QAP-3-12.

11 QA Review  
FED BY Z...  
QAR *[Signature]* Date 4/25/97

12 Response Due Date  
MAY 27, 1997

13 Affected Organization QA Manager Issuance Approval: (QAR for PR)  
Printed Name *G. J. Gilstrap* Signature *[Signature]* Date 4/25/97

22 Corrective Actions Verified  
QAR *[Signature]* Date 7-15-97

23 Closure Approved by: (N/A for PR)  
AOQAM *[Signature]* Date 7/17/97

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

PR/DR NO. LVMO-97-D013

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QA: L

PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

The remedial action is to request the same data that is stated in IOC VA.SA.LMF.01/97-001(dated January 23, 1997) via QAP-3-12/Rev. 7 (Recommended Action #3).

15 Extent of Condition: (Not required for PR)

It is limited to the subject analysis (DI: BBAA00000-01717-0200-00017 REV00). The data from in the IOC was used only in this analysis and no other QAP-3-9 Design Analysis (Recommended Action #1).

Misunderstanding about exact meaning of "input" (determined as an assumption). There was no impact on the analysis conclusions (Recommended Action #2).

16 Root Cause Determination: (Not required for PR)

Not required because the deficiency is an isolated incident.

Required:  Yes  No

17 Action to Preclude Recurrence: (Not required for PR)

QAP-3-9/Rev. 7 states in Attachment I how to request design inputs from other M&O organizations at or above the Department Manager level and U.S. Geological Survey.

Required:  Yes  No

18 Corrective Action Completion Due Date:

06/30/97

19 Response by: Alden M. Segrest

Date 6/30/97

Phone (702)295-4416

20 Response Accepted

21 Response Accepted (N/A for PR)

QAR

Date 7-15-97

DOQA

For Date 7/17/97

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

NO. LVMO-97-D-013

PAGE \_\_\_\_\_ OF \_\_\_\_\_

QA: L

PR/DR CONTINUATION PAGE

VERIFICATION OF CORRECTIVE ACTION FOR DEFICIENCY REPORT (DR) YM-97-D-013

Verification of Corrective Action included a review of the following objective evidence:

- Request for Closure (LV.MGDS.JJC.07/97.052), dated July 11, 1997
- DR LVMO 97-D-013 including transmittal IOC Gilstrap to Segrest (LV.QA.FNZ.04/97-087), dated April 28, 1997
- Request for Extension including transmittal IOC Segrest to Abend (LV.MG.AMS.05/97-042), dated May 27, 1997
- Response including transmittal letter Snell to Horton (LV.MGDS.JJC.6/97-046), dated June 30, 1997
- QAP Design Input Request, dated July 8, 1997
- QAP-3-9, Rev. 7
- Training Report for Waste Package Personnel

A meeting was conducted with John Clark and members of his staff to discuss the corrective actions resulting from this DR. Remedial Actions include using the "Design Input Request" forms in lieu of "Inter Office Correspondence" per QAP-3-9, Rev. 7. Action to Preclude Recurrence includes Waste Package personnel training to the revised QAP-3-9, Rev. 7. Under the section on inputs, has expanded directions on inputs and requesting inputs. Training on this procedure should provide the actions to preclude future recurrence of this problem.

See Objective Evidence for Closure binder, dated 7/11/97.

The originator of the DR (Roberta Stambaugh) was contacted 7/15/97, via telecon, and the Objective Evidence for Closure was discussed to assure the originators concerns were adequately addressed.

  
Lawrence W. McGrath, QAR

7-15-97  
Date

# **OBJECTIVE EVIDENCE FOR CLOSURE**

**LVMO-97-D013**

**Deficiency Report Implementation Completion**

**July 11, 1997**

**QAR: Lawrence McGrath**

**(702) 734-0882**

**A.M. Segrest  
5-4416  
M.J. Plinski  
5-4669  
J.J. Clark  
5-4415**

JJC/kes  
July 11, 1997  
ioc.052

# OBJECTIVE EVIDENCE FOR CLOSURE

## LVMO-97-D013

Deficiency Report Implementation Completion  
July 11, 1997

QAR: Lawrence McGrath  
(702) 734-0882

### TABLE OF CONTENTS

- i. Request for Closure
- I. Deficiency Report LVMO-97-D013 including transmittal IOC Gilstrap to Segrest (LV.QA.FNZ.04/97-087) dated April 28, 1997
- II. Request for Extension including transmittal IOC Segrest to Abend (LV.MG.AMS.5/97-042) dated May 27, 1997
- III. Response including transmittal letter Snell to Horton (LV.MGDS.JJC.6/97-046) dated June 30, 1997
- IV. QAP Design Input Request dated July 8, 1997
- V. QAP-3-9, Rev. 7 Completed Training Report for Waste Package Personnel  
NOTE: QAP 3-9, Rev. 7, under the section on inputs, has expanded directions on inputs and requesting inputs. Training on this procedure should provide the actions to preclude future recurrence of this problem.

TRW Environmental  
Safety Systems Inc.

1180 Town Center Drive  
Las Vegas, NV 89134  
702.295.5400

WBS: 1.2.2  
QA: L

Contract #: DE-AC01-91RW00134  
LV.MGDS.JJC.07/97.052

July 11, 1997

Mr. Donald G. Horton, Director  
Quality Assurance Division  
U.S. Department of Energy  
Yucca Mountain Site Characterization Office  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

Attention: Deborah G. Sult, PR/DR Coordinator

Dear Mr. Horton:

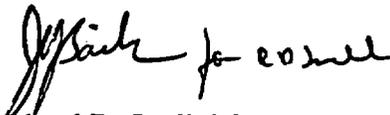
Subject: Deficiency Report Implementation Completion

Please be advised that the response implementation is complete for  
Deficiency Report LVMO-97-D-013 relating to requesting inputs.

This notification follows procedure AP-16.1Q, Rev. 1, ICN O,  
Performance/Deficiency Reporting, section 5.6b. We have objective evidence  
to aid you in your verification.

Should you have any questions on this subject please call me at (702) 295-  
5601, or John Clark at (702) 295-4415.

Sincerely,



Richard D. Snell, Manager  
Engineering and Integration Operations  
Management and Operating Contractor

LV.MGDS.JJC.07/97.052

July 11, 1997

Page 2

JCC/kes

cc:

P.V. Auer, OQA/QATSS, Las Vegas, NV  
J. N. Bailey, M&O, Las Vegas, NV  
W.E. Barnes, DOE/YMSCO, Las Vegas, NV  
H.A. Benton, M&O, Las Vegas, NV  
K.K. Bhattacharyya, M&O, Las Vegas, NV  
J. J. Clark, M&O, Las Vegas, NV JJC  
T.W. Doering, M&O, Las Vegas, NV  
L.D. Foust, M&O, Las Vegas, NV  
G.N. Kimura, M&O, Las Vegas, NV  
R.A. Morgan, M&O, Las Vegas, NV  
L.W. McGrath, QAR, OQA/QATSS, Las Vegas, NV  
M.J. Plinski, M&O, Las Vegas, NV P2  
J.J. Salchak, M&O, Las Vegas, NV  
A.M. Segrest, M&O, Las Vegas, NV AMS  
David Stahl, M&O, Las Vegas, NV  
D.G. Sult, OQA/QATSS, Las Vegas, NV  
M. Woods, M&O, Las Vegas, NV  
R.M. Stambaugh, M&O, Las Vegas, NV  
F.N. Zinkevich, M&O, Las Vegas, NV  
RPC = 2 pages

**Interoffice Correspondence**  
**Civilian Radioactive Waste Management System**  
**Management & Operating Contractor**



TRW Environmental  
Safety Systems, Inc.

QA: L

**Subject**  
Issuance of  
Deficiency Report (DR)  
LVMO-97-D013

**Date**  
April 28, 1997  
LV.QA.FNZ.04/97-087

**From**  
O.J. Gilstrap *O.J. Gilstrap*

**To**  
Alden Segrest  
423/1025

**cc**  
See Below

**Location/Phone**  
423/715  
(702) 295-3967

The referenced DR identifies non-compliance with QAP-3-12 and QAP-3-0 with respect to transfer of Design Inputs between design organizations.

Please identify the corrective actions to be taken and implemented to correct the deficiencies. Refer to AP-16.1Q in completing these actions. Send originals of your response to Gail Abend, PR/DR Coordinator. The response is due May 27, 1997. Extensions to due dates must be requested in writing with appropriate justification, prior to the due date.

If you have any questions, please contact Fred N. Zinkevich at 295-4177.

cc:

G.S. Abend 423/715  
F. N. Zinkevich 423/715  
M. R. Franks 423/715  
J. J. Clark 423/1025  
H. A. Benton 423/1028  
R. Stambaugh 423/617  
S. L. Klapproth (action tracking) SU-324

*cc: Mary Woods  
Ed Cikanek  
Les Stallings*

**Interoffice Correspondence**  
Civilian Radioactive Waste Management System  
Management & Operating Contractor



TRW Environmental  
Safety Systems Inc.

WBS: 1.2.6  
QA: L

**Subject:**  
Deficiency Report  
LVMO-97-0013  
Design Inputs

**Date:**  
May 27, 1997  
LV.MG.AMS.5/97-042

**From:**  
A.M. Segrest

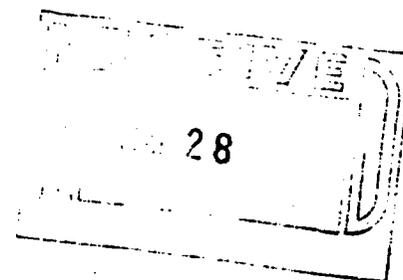
**To:**  
Gail S. Abend

**cc:**  
RPC = 1 page

**Location/Phone:**  
SUM1/423-1019  
(702) 295-4416

In accordance with AP-16.1Q, Rev. 01 paragraph 5.4.1, we request an extension until June 30, 1997 for the subject DR. The press of business as the May 30, 1997 deadline for many design products approached did not allow for an adequate response to the DR.

- Distribution:
- H. A. Benton
  - J. J. Clark
  - M. R. Franks
  - O. J. Gilstrap
  - S. L. Klepproth
  - T. L. Lotz
  - R. A. Morgan (LV)
  - R. M. Stambaugh
  - Mary Woods
  - F. N. Zinkevich, QAR



JJC/kes



TRW Environmental  
Safety Systems Inc.

1180 Town Center Drive  
Las Vegas, NV 89134  
702.295.5400

WBS: 1.2.2  
QA: L

Contract #: DE-AC01-91RW00134  
LV.MGDS.JJC.6/97-046

June 30, 1997

Mr. Donald G. Horton, Director  
Quality Assurance Division  
U.S. Department of Energy  
Yucca Mountain Site Characterization Office  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

Attn: Deborah G. Sult, PR/DR Coordinator

Dear Mr. Horton:

Subject: Deficiency Report (DR) LVMO-97-D-013  
Requests for Inputs

Please find enclosed a response to the following deficiency:

LVMO-97-D-013

This is following procedure AP-16.1Q, Rev. 2, ICN 0, Performance/  
Deficiency Reporting. This response is being sent to OQA as a result of the  
QA Transition.

Should you have any questions on this subject please call me at (702) 295-5601,  
or John Clark at (702) 295-4415.

Sincerely,

Richard D. Snell, Manager  
Engineering and Integration Operations  
Management and Operating Contractor

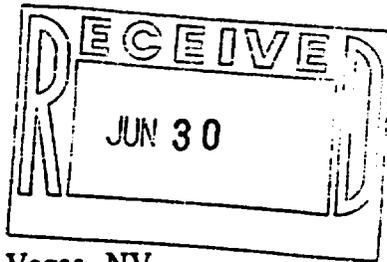
Enclosure:  
Deficiency Report LVMO-97-D-013

RDS/JCC/kes

LV.MGDS.JJC.6/97-046

June 30, 1997

Page 2



cc:

P. V. Auer, QATSS/CER, Las Vegas, NV

J. N. Bailey, M&O, Las Vegas, NV

W. E. Barnes, DOE/YMSCO, Las Vegas, NV

H. A. Benton, M&O, Las Vegas, NV

J. J. Clark, M&O, Las Vegas, NV

R. W. Clark, DOE/YMSCO, Las Vegas, NV

T. W. Doering, M&O, Las Vegas, NV

L. D. Foust, M&O, Las Vegas, NV

L. W. McGrath, QAR, QATSS, Las Vegas, NV

R. A. Morgan, M&O, Las Vegas, NV

M. J. Plinski, M&O, Las Vegas, NV

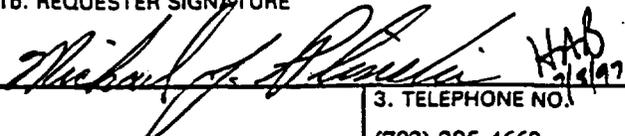
A. M. Segrest, M&O, Las Vegas, NV

David Stahl, M&O, Las Vegas, NV

D. G. Sult, PR/DR Coordinator, QATSS, Las Vegas, NV

RPC = Total 4 pages

Complete only applicable items.

1a. REQUESTER NAME Michael J. Plinski	1b. REQUESTER SIGNATURE  HAB 7/15/97	1c. DATE 07/08/97
2. ORGANIZATION M&O/FCF Waste Package Development	3. TELEPHONE NO. (702) 295-4669	
4. ADDRESS TES3/423 1180 Town Center Dr. Las Vegas, NV 89134		

5. NEED DATE OF DESIGN INPUT 08/10/97	6. DESIGN INPUT NEEDED FOR WORK SUBJECT TO QARD REQUIREMENTS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. SCOPE OF DESIGN INPUT REQUESTED (Name of document(s), if known): The Preliminary Design Basis Fuel Data that is stated in the IOC VA.SAI.MF.01/97.001.	
8. DESCRIPTION OF INTENDED USE OF DESIGN INPUT: This QAP-3-12 will be attached as a supplemental to Waste Package Design Configurations (DI: BBAA00000-01717--0200-00017 REV00) in the response of Deficiency Report NO. LVMO-97-D013.	

To:

9a. RESPONSIBLE MANAGER NAME Mark R. Wisenburg	9b. ORGANIZATION M&O/TRW	9c. TELEPHONE (703) 204-8682
9d. ADDRESS TES1/24 2650 Park Tower Drive, Suite 800 Vienna, VA 22180		

# Completed Training Report

## QAP-3-9, Rev. 7

As of 7/11/97

### *Waste Package Personnel*

<u>Employee Name</u>	<u>Date Training Completed</u>
ANDERSON, MICHAEL	6/9/97
BAHNEY, ROBERT	5/30/97
BENNETT, SCOTT	5/29/97
BENTON, HUGH	6/16/97
CEYLAN, ZEKAI	5/30/97
CHAGNON, CARL	6/29/97
COGAR, JERRY	5/29/97
CONNELL, GENE	6/9/97
DAVIS, JOHN	6/2/97
DOERING, THOMAS	5/27/97
DOERING, THOMAS	5/30/97
GOTTLIEB, PETER	7/8/97
HASSLER, LAWRENCE	6/18/97
HENDERSON, DAVID	6/20/97
KNAPP, KATHRYN	7/7/97
MASSARI, JOHN	6/4/97
MAYS, CLAUDE	6/10/97
MAYS, CLAUDE	7/8/97
MCCOY, JOHN	5/27/97
NICHOL, MARCUS	5/30/97
PASUPATHI, VENKATARAMAN	6/4/97
PLINSKI, MICHAEL	5/29/97
THOMAS, DANIEL	6/2/97
THOMAS, DANIEL	7/8/97
THOMPSON, ALONSO	6/17/97
WALLIN, WAYNE	5/30/97
WANG, HELEN	5/27/97
WELLS, ALAN	6/3/97
WIMMER, LARRY	6/10/97
WRIGHT, KENNETH	6/9/97