



Department of Energy

Washington, DC 20585

JAN 17 1997

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for Yucca Mountain Site  
Characterization Project  
TRW Environmental Safety Systems, Inc.  
Bank of America Center, Suite P-110  
101 Convention Center Drive  
Las Vegas, NV 89109

ISSUANCE OF DEFICIENCY REPORT (DR) YM-97-D-025 RESULTING FROM OFFICE  
OF QUALITY ASSURANCE (OQA) SURVEILLANCE YMP-SR-97-002

Enclosed is DR YM-97-D-025 generated as a result of OQA Surveillance YMP-SR-97-002.

Please identify the corrective action to be taken and implemented to correct the deficiency. Send the original of your response to Deborah Sult, OQA/QATSS, P.O. Box 98608, Mail Stop 455, Las Vegas, Nevada 89193-8608. Response to the DR is due 20 working days from the date of this letter. Any extension to the due date must be requested in writing, with appropriate justification, prior to the due date.

If you have any questions, please contact either Mario R. Diaz at (702) 794-1489 or John S. Martin at (702) 794-5591.

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

OQA:MRD- 0720

Enclosure:  
DR YM-97-D-025

cc w/encl:  
T. A. Wood, DOE/HQ (RW-55) FORS  
J. O. Thoma, 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  
Records Processing Center = "6"

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

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Recip: NMSS/HLVR

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

8  Performance Report  
 Deficiency Report  
 NO. YM-97-D-025  
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 QA: L

**PERFORMANCE/DEFICIENCY REPORT**

<b>1 Controlling Document:</b> Quality Assurance Requirements and Description (QARD) DOE/RW/0333P, Revision 5	<b>2 Related Report No.</b> YM-SR-97-002
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<b>3 Responsible Organization:</b> Civilian Radioactive Waste Management Systems Management and Operations (CRWMS M&O) Test Coordination Office	<b>4 Discussed With:</b> Ned Elkins
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**5 Requirement/Measurement Criteria:**

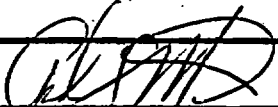
The following listed requirements and associated deficiencies were found during the course of Surveillance YM-SR-97-002. Subject surveillance evaluated a limited selection of Measuring and Test Equipment (M&TE) for the single heater test being conducted in Alcove 5. In the evaluation of the deficiencies listed below, other testing activities within the Exploratory Studies Facility (ESF) are required to be evaluated or an evaluation be given as to why other testing activities should be excluded.

(See page 3)

**6 Description of Condition:**

1) Roctest was evaluated and selected to supply calibration of rock mechanics instrumentation for which Roctest manufactures, specifically high temperature BOF-EX measurement modules. Based on this the Supplier Evaluation Report (SER) only identified QA program elements 1.0, 2.0, 5.0, 6.0, 12.0, 13.0, 15.0, 16.0, 17.0 and 18.0 are applicable. However, Roctest procured items (a module to be added to their instrumentation package) and calibration services from a company called RDP which would involve QA program elements 4.0 and 7.0. Roctest has not been evaluated and accepted to apply QA program elements 4.0 and 7.0. As a result, the acceptability of RDP for construction services is in question.

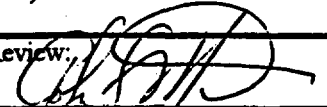
(See page 3)

<b>7 Initiator</b> John Martin  Date <u>1-10-97</u>	<b>9 Is condition an isolated occurrence?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown; Must be Yes if PR
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**10 Recommended Action: (Not required for PR)**

- \* Identify remedial actions necessary to correct the deficiencies noted in Block 6 above.
- \* Investigate to determine the extent of like conditions.
- \* Identify those actions necessary to correct deficiencies found through investigation.
- \* In addition to the above, provide an evaluation as to the validity of data obtained from M&TE which was not calibrated or not calibrated by an approved supplier of calibration services.

(See page 3)

<b>11 QA Review:</b> QAR  Date <u>1-10-97</u>	<b>12 Response Due Date</b> 20 working days from issuance
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<b>13 Affected Organization QA Manager Issuance Approval: (QAR for PR)</b> Printed Name <u>Donald G. Horton</u>	Signature  Date <u>1/16/97</u>
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<b>22 Corrective Action Verified</b> QAR _____ Date _____	<b>23 Closure Approved by: (N/A for PR)</b> AOQAM _____ Date _____
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PR/DR NO. YM-97-D-025

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QA: L

PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

15 Extent of Condition: (Not required for PR)

16 Root Cause Determination: (Not required for PR)

Required  Yes  No

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

Required  Yes  No

18 Corrective Action Completion Due Date:

19 Response by:

Initial

Amended

Date

Phone

20 Response Accepted

QAR

Date

21 Response Accepted (N/A for PR):

AOQAM

Date

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RADIOACTIVE WASTE MANAGEMENT  
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PR/DR CONTINUATION PAGE

5 Requirement/Measurement Criteria: (Continued)

- 1) QARD Section 7.0 Control of Purchased Items and Services paragraph 7.2.2 (A) states "Supplier selection shall be based on an evaluation, performed before the contract is awarded, of the supplier's capacity to provide items or services in accordance with procurement document requirements."
- 2) QARD Section 12.0 Control of Measuring and Test Equipment paragraph 12.2.1 A states in part "Measuring and Test Equipment including equipment that contains software or programmable hardware, shall be calibrated, ...prior to use, ..."
- 3) QARD Section 12.0 paragraph 12.2.7 states "Measuring and test equipment calibration documentation shall include the following information:
  - E. Identification of the date of calibration and the recalibration due date or interval, as appropriate.
  - H. Identification of the implementing document (including revision level) used in performing the calibration.
- 4) QARD Section 12.0 paragraph 12.2.1 E states "Calibrated measuring and test equipment shall be labeled, tagged or otherwise suitably marked or documented to indicate due date or interval of the next calibration."

6 Description of Condition: (Continued)

The evaluation of Roctest has failed to identify the need for Roctest to go outside their company for the acquisition of items and services not directly supplied by them. No evaluation exists at this time to indicate that Roctest has performed an evaluation of RDP to provide these services. As such, the modules calibrated by RDP are in question.

Modules supplied by RDP are identified by serial numbers 138, 139, 140, 141, 142, 143, 144,

- 2) Two thermocouple probes designated TMA-TC-2A and TMA-TC-2B located in single heater test borehole designated ESF-TMA-TC-2 were installed prior to being calibrated or checked throughout the expected range of use.
- 3) The calibration certificate supplied by Roctest for seven high temperature BOF-EX measurement modules dated 96/07/10 does not contain:

- 1 Recalibration due date or interval.
- 2 Identification of the implementing document used in performing the calibration.

The serial numbers for the seven high temperature BOF-EX measurement modules are 055D-9622, 055D-9623, 055D-9624, 055D-9625, 055-9626, 055D-9627 and 055D-9628.

- 4) The following instruments have not been labeled, tagged, marked, or indicated on documents as to the due date or interval of the next calibration:
  - \* High Temperature BOF-EX measurement modules 055D-9622 through 055D-9628
  - \* Thermocouple probes TMA-TC-2A and TMA-TC-2B

10 Recommended Action: (Not required for PR) (Continued)

- \* Determine those actions necessary to preclude recurrence.