



Department of Energy

Washington, DC 20585

QA: L

JUL 11 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

ISSUANCE OF DEFICIENCY REPORTS (DR) YM-97-D-065, YM-97-D-066 AND
PERFORMANCE REPORT (PR) YM-97-P-012 RESULTING FROM OFFICE OF
QUALITY ASSURANCE (OQA) SURVEILLANCE LLNL-SR-97-039 OF
LAWRENCE LIVERMORE NATIONAL LABORATORY

Enclosed are DRs YM-97-D-065, YM-97-D-066, and PR YM-97P-012 generated as a
result of OQA Surveillance LLNL-SR-97-039.

Please provide a response to these deficiencies that meet the applicable requirements of
Administrative Procedure 16.1Q, Performance/Deficiency Reporting. Send the original of
your responses to Deborah Sult, OQA/QATSS, P.O. Box 30307, Mail Stop 455,
North Las Vegas, Nevada 89036-0307. Response to the DR is due 20 working days from
the date of this letter. Extensions to due date must be requested in writing with
appropriate justification prior to the due date.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or
John R. Doyle at (702) 794-1465.

Handwritten signature of Donald G. Horton

Donald G. Horton, Director
Office of Quality Assurance

OQA:JB-1871

Enclosures:

- 1. DR YM-97-D-065
2. DR YM-97-D-066
3. PR YM-97-P-012

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Recip: NMSS/HLWR

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PDR



Printed with soy ink on recycled paper

L. D. Foust

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JUL 11 1997

cc w/encls:

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
W. L. Clarke, M&O/LLNL, Livermore, CA
Royce Monks, M&O/LLNL, Livermore, CA
J. E. Therien, OQA/QATSS, Las Vegas, NV

cc w/o encls:

W. L. Belke, NRC, Las Vegas, NV
J. R. Doyle, OQA/QATSS, Las Vegas, NV
D. G. Sult, OQA/QATSS, Las Vegas, NV
R. W. Clark, DOE/OQA, Las Vegas, NV

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

8 Performance Report
 Deficiency Report
 NO. YM-97-D-065
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Technical Implementation Plan (TIP)-NF-31, Revision 1	2 Related Report No. LLNL-SR-97-039
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3 Responsible Organization: Lawrence Livermore National Laboratory (LLNL)	4 Discussed With: Royce Monks, James Ziemba
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5 Requirement/Measurement Criteria:

TIP-NF-31, Revision 1, "Neutron and Gamma (Density) Logging in Welded Tuff"

Paragraph 5.0 states in part: "The field measurement sequence includes measurements of a standard outside the boreholes and measurements within boreholes for moisture or density testing.

a) Measurement of Standard Counts: The calibration of the moisture or density system is made in terms of a ratio to standard count made with the probe secured within the shielded surface unit or a special calibration fixture. A log will be kept of the standard counts taken before and after each borehole survey to allow the user to determine when a defect occurs and the rate of change per unit time of course. Selection of an appropriate base station location is discussed in the manual of operation."

In addition, Paragraph 6.0 states in part: "Documentation of the methods or procedures used to perform the test/activity will be provided in the Scientific Notebooks (SN) and the method or approach used will be determined by the Principal Investigator (PI) or the person assigned by the PI to do the work. As such, deviations from the suggested or typical approaches outlined in this procedure are allowed based on the technical judgment of the scientist responsible for this activity. Revised procedures will then be prepared to reflect changes, when appropriate.

6 Description of Condition:

Contrary to the above requirements, standard counts were not recorded in SN 00291 before and after the logging of boreholes ESF-TMA-HYD-1 and ESF-TMA-HYD-2. In addition, the above deviation was not documented in the SN for this activity nor the procedure revised to reflect same.

7 Initiator John R. Doyle <i>John R. Doyle</i> Date <u>7/2/97</u>	9 Is condition an isolated occurrence? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown; Must be Yes if PR
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10 Recommended Action: (Not required for PR)

1) Investigate impact on quality of the data collected.
 2) Revise procedures, if necessary, to reflect current practice.

11 QA Review: <i>John R. Doyle</i> QAR John R. Doyle Date <u>7/2/97</u>	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager Issuance Approval: (QAR for PR) Printed Name <u>DONALD G. HOODEN</u> Signature <i>Donald G. Hooden</i> Date <u>7/10/97</u>

22 Corrective Action Verified QAR _____ Date _____	23 Closure Approved by: (N/A for PR) AOQAM _____ Date _____
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PR/DR NO. YM-97-D-065

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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 Date:

19 Response by:

Initial
 Amended Date Phone

20 Response Accepted

QAR Date

21 Response Accepted (N/A for PR):

AQAM Date

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8 Performance Report
 Deficiency Report
 NO. YM-97-D-066
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Quality Assurance Requirements Description (QARD) Department of Energy/RW-0333P, Revision 7	2 Related Report No. LLNL-SR-97-039
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3 Responsible Organization: Lawrence Livermore National Laboratory (LLNL)	4 Discussed With: Royce Monks, James Ziemba
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5 Requirement/Measurement Criteria:

 QARD Section 5.2 Requirements states: "Work shall be performed in accordance with implementing documents."

 Section 6.2.1 states in part: "Implementing documents and documents that specify technical ^{and 7/2/97} requires or quality requirements shall be controlled ..."

6 Description of Condition:

 A review of Technical Implementation Plan (TIP)-NI-031, Revision 1, reveals that instructions to operate the neutron tools are described in the operations manuals. Contrary to the above requirement, a Campbell Pacific Nuclear operations manual for a 501 DR Depth Probe Moisture/Density Gauge, dated 6/27/84, is being utilized to perform quality affecting activities and not controlled.

7 Initiator John R. Doyle <i>John R. Doyle</i> Date 7/2/97	9 Is condition an isolated occurrence? <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)

 Revise TIP-NF-031 to have as an attachment the operations manual for this activity.
 Investigate to determine if any other activities are affected by the above adverse condition to quality.

11 QA Review: <i>John R. Doyle</i> QAR John R. Doyle Date 7/2/97	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager Issuance Approval: (QAR for PR) Printed Name <u>DONALD G. HORTON</u> Signature <i>Donald G. Horton</i>	Date <u>7/10/97</u>
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22 Corrective Action Verified QAR Date	23 Closure Approved by: (N/A for PR) AOQAM Date
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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

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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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8 IS A RED STAMP
 Performance Report
 Deficiency Report
 NO. YM-97-P-012
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 QA: L

PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: Technical Implementation Plan (TIP)-NF-31, Revision 1	2 Related Report No. LLNL-SR-97-039
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3 Responsible Organization: Lawrence Livermore National Laboratory (LLNL)	4 Discussed With: Royce Monks, James Ziembra
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5 Requirement/Measurement Criteria:

TIP-NF-31, Revision 1, "Neutron and Gamma (Density) Logging in Welded Tuff"

Paragraph 7.0 states in part: "This procedure will be carried out by a geologist, geophysicist, or technician who has been trained to this procedure ..."

6 Description of Condition:

During the surveillance, no objective evidence was found for Richard Carlson for training to TIP-NF-31, Revision 1.

7 Initiator John R. Doyle <i>John R. Doyle</i> Date <u>7/2/97</u>	9 Is condition an isolated occurrence? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown; Must be Yes if PR
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10 Recommended Action: (Not required for PR)

Investigate impact and extent due to lack of training to this technical procedure.

11 QA Review: QAR John R. Doyle <i>John R. Doyle</i> Date <u>7/2/97</u>	12 Response Due Date 20 working days from issuance
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13 Affected Organization QA manager Issuance Approval: (QAR for PR)

Printed Name JOHN R. DOYLE Signature *John R. Doyle* Date 7/2/97

22 Corrective Action Verified QAR _____ Date _____	23 Closure Approved by: (N/A for PR) AOQAM _____ Date _____
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PERFORMANCE/DEFICIENCY REPORT RESPONSE

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18 Corrective Action Completion Date:

19 Response by:

Initial
 Amended Date Phone

20 Response Accepted

QAR Date

21 Response Accepted (N/A for PR):

AOQAM Date