



Department of Energy

Washington, DC 20585

QA: L

OCT 09 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 RESPONSES TO DEFICIENCY REPORTS (DR) YM-97-D-075,  
YM-97-D-076 AND PERFORMANCE REPORT (PR) YM-97-P-016 AND  
VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF PR YM-97-P-016  
RESULTING FROM OFFICE OF QUALITY ASSURANCE (OQA) AUDIT  
LANL-ARC-97-19 OF LOS ALAMOS NATIONAL LABORATORY

The OQA staff has evaluated the responses to DRs YM-97-D-075, YM-97-D-076 and PR YM-97-P-016. The responses have been determined to be satisfactory. Verification of completion of the corrective actions for the DRs will be performed after the effective dates provided. Any extension to the dates must be requested in writing, with appropriate justification, prior to the date. Please send a copy of extension requests to Deborah Sult, OQA/QATSS, P.O. Box 30307, Mail Stop 455, North Las Vegas, Nevada 89036-0307.

Verification of corrective actions for PR YM-97-P-016 has been completed and this PR is considered closed.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or Henry T. Greene at (702) 794-1498.

*James Blaylock for*  
Donald G. Horton, Director  
Office of Quality Assurance

OQA:JB-2474

Enclosures:

- 1. DRs YM-97-D-075 and YM-97-D-076
- 2. PR YM-97-P-016

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PDR WASTE  
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150091



Recip: Wmss / PAHL

OCT 09 1997

L. D. Foust

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cc w/encls:

T. A. Wood, DOE/HQ (RW-55) FORS  
J. O. Thoma, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
T. J. Hirons, M&O/LANL, Los Alamos, NM  
M. J. Clevenger, M&O/LANL, Los Alamos, NM  
L. E. Souza, OQA/LANL, Los Alamos, NM  
B. R. Justice, M&O, Las Vegas, NV  
R. A. Morgan, M&O, Las Vegas, NV

cc w/o encls:

W. L. Belke, NRC, Las Vegas, NV  
K. A. Hodges, 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  
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8  Performance Report  
 Deficiency Report  
NO. YM-97-D-075  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:  
AP-17.1Q, "Record Source Responsibilities for Inclusionary Records," Rev. 0

2 Related Report No.  
LANL-ARC-97-19

3 Responsible Organization:  
LANL

4 Discussed With:  
M. Clevenger, S. Martinez

5 Requirement/Measurement Criteria:  
AP-17.1Q, "Record Source Responsibilities for Inclusionary Records," Rev. 0, Para. 5.7.4, states in part: "Create a list of cited references by correspondence for study plans, progress reports, or any published technical or scientific reports submitted to the RPC that contain cited references . . . Send the list to an OCRWM TIC (i.e., Vienna TIC or Las Vegas TIC). . . Submit the list as a record . . ."

6 Description of Condition:  
  
LANL has not submitted a list of cited references to the Technical Information Center (TIC) since January of 1996, although there are cited references in technical publications and plans generated since that time.

7 Initiator *Kristi A. Hodges*  
Kristi A. Hodges Date 07/29/97

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

10 Recommended Actions: (Not required for PR)

1. Compile and submit a list of cited references to the TIC and RPC in accordance with Para. 5.7.4.
2. Establish a time interval; e.g., quarterly, to generate and submit cited reference updates.

11 QA Review: *Kristi A. Hodges*  
QAR Kristi A. Hodges Date 07/29/97

12 Response Due Date  
20 working days from issuance

13 Director, OQA Issuance Approval: (QAR for PR)

Printed Name DONALD SHORRAN Signature *Donald Shorran* Date 8/8/97

22 Corrective Actions Verified  
QAR Date

23 Closure Approved by: (N/A for PR)  
DOQA Date

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PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

The LANL YMP cited reference list for study plans, progress reports, and published technical or scientific reports (LA-MS reports) for 1996 through 1997 will be reviewed and updated to ensure completeness. The 1996 referenced list will be submitted within 90 days of this response. The 1997 referenced list will be submitted as required by AP-17.1Q, R0, Subsection 5.7.6.

15 Extent of Condition: (Not required for PR)

Processed documents requiring cited references submittals were identified. As the references have been identified, are available, and are in the process of being submitted, it has been determined there has been no adverse impact to quality.

16 Root Cause Determination: (Not required for PR)

Required:  Yes  No

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

Required:  Yes  No

Submittals for the 1996 and 1997 cited references for applicable documentation will be accomplished as stated above. The noted references and future references will be documented and maintained current, as a distinct file, and submitted as required.

As a result of establishing corrective action response for this deficiency, responsible personnel are now more cognizant of the applicable requirements in AP-17.1Q, R0.

18 Corrective Action Completion Due Date:

12-1-97

19 Response by:

M. G. Clewinger

Date 10 SEPT. 97

Phone 505.665.1454

20 Response Accepted

QAR

*Justin A. Hodges*

Date

9/24/97

21 Response Accepted (N/A for PR)

DOQA-

*James Blaylock* for

Date

10/7/97

Exhibit AP-16.1Q.2

9/11/97

EES-13-09-97-1682

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Rev. 06/02/97

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 Deficiency Report  
NO. YM-97-D-076  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document: DOE/RW-0333P, "OCRWM Quality Assurance Requirements and Description," Rev. 7  
2 Related Report No. LANL-ARC-97-19

3 Responsible Organization: LANL  
4 Discussed With: M. Clevenger, S. Martinez

5 Requirement/Measurement Criteria:  
QARD, Rev. 7, Section 17.0, Para. 17.2.2B, states in part: "Individuals creating QA records shall ensure that the QA records are legible, accurate, complete appropriate to the work accomplished and identifiable to the item(s) or activity(s) to which they apply."  
AP-17.1Q, Rev. 0, Para 5.2.1 C & D, state in part: "Ensure that records have all blank lines and spaces accounted for in accordance with governing procedures, or provide a statement indicating that blank lines and spaces are intentional and identify the affected pages . . . Ensure that records are complete and contain all attachments and enclosures." Para. 5.5.a. states in part: ". . . Initial or sign and date the changes or corrections."

6 Description of Condition:  
Measuring and Test Equipment (M&TE) Reports submitted by LANL to the Records Processing Center (RPC) in January and May of 1997 contained multiple record violations, including: unaccounted for blank lines and spaces, references to attachments that were not part of the submitted records packages, incomplete information (i.e., reference to a scientific notebook with no identifier to determine which notebook), and failure to initial and/or date corrections. Thirteen of sixteen M&TE Report records packages reviewed were found to be deficient. These records had been received but not processed by the RPC, and were considered as part of the RPC records backlog.  
Indicated record identifiers of subject records: SN011964, PN441939, PN487281, PN486921, PN400508, SN20322906, 016532, SN2410090, PN608866, PN295584, PN817330, PN405742, & SN1288G

7 Initiator: *Kristi A. Hodges*  
Kristi A. Hodges Date 07/29/97  
9 Is condition an isolated occurrence?  
 Yes  No  Unknown; Must be Yes if PR

10 Recommended Actions: (Not required for PR)  
Describe remedial actions required to correct the specific conditions noted.  
Describe investigative actions performed to determine the extent of the condition and the result of the determination.  
Describe actions to preclude recurrence.

11 QA Review: *Kristi A. Hodges*  
QAR Kristi A. Hodges Date 07/29/97  
12 Response Due Date  
20 working days from issuance

13 Director, OQA Issuance Approval: (QAR for PR)  
Printed Name DONALD G. HORTON Signature *Donald G. Horton* Date 8/8/97

22 Corrective Actions Verified  
QAR Date  
23 Closure Approved by: (N/A for PR)  
DOQA Date

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**PERFORMANCE/DEFICIENCY REPORT RESPONSE**

**14 Remedial Actions:**

Since the records identified in YM-97-D-076 are in the backlog status at the RPC and accession numbers cannot be acquired, the identified records will be retrieved and amended with the appropriate corrections that will meet the requirements of AP-17.1Q, R0. Remedial corrective action to be completed by 11/10/97.

**15 Extent of Condition: (Not required for PR)**

Documentation for currently active measuring and test equipment will be reviewed to identify documents that exhibits the condition(s) noted in YM-97-D-076. As deficiencies are identified, corrections will be effected as necessary.

**16 Root Cause Determination: (Not required for PR)**

Required:  Yes  No

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

Required:  Yes  No

AP-17.1Q provides sufficient requirements to preclude recurrence of the noted condition(s).

As a result of establishing corrective action response for this deficiency, responsible personnel are now more cognizant of the applicable requirements in AP-17.1Q.

**18 Corrective Action Completion Due Date:**

12-15-97

**19 Response by:**

M.D. Cleverger Date 10 Sept. 97 Phone 505.665.1454

**20 Response Accepted**

QAR *[Signature]* Date 9/24/97

**21 Response Accepted (N/A for PR)**

DOQA *[Signature]* Date 10/7/97

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8  Performance Report  
 Deficiency Report  
NO. YM-97-P-016  
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PERFORMANCE/DEFICIENCY REPORT

1 Controlling Document:  
LANL-YMP-QP-12.3, R3

2 Related Report No.  
Audit LANL-ARC-97-19

3 Responsible Organization:  
LANL

4 Discussed With:  
Jim Young, Steve Chipera

5 Requirement/Measurement Criteria:  
Paragraph 6.2.3 of subject procedure requires the M&TE Custodian to verify that the calibration standard have a greater accuracy than the M&TE being calibrated. If standards with an accuracy equal to the M&TE being calibrated must be used, and can be shown to be adequate for the requirements, the Custodian documents the basis for calibration acceptance on line 10 of the M&TE Report and obtains authorization for the calibration acceptance by having the principal Investigator sign and date line 11.

6 Description of Condition:  
Contrary to the above, for the Thermolyne Automatic Furnaces that were calibrated ( e.g s/n 645327, 645328), the standard used (YMP Long Thermocouple)(identifier #67132) had a accuracy requirement of 5 degrees celsius, while the accuracy requirement for the furnace was also 5 degrees celsius. The M&TE Reports reviewed did not document a basis for calibration acceptance relative to using a standard of equal accuracy. In addition the custodian maintained that all calibrations were being performed with standards of greater accuracy . A review of documentation for other LANL M&TE on the project did not disclose similar problems.

7 Initiator *K. O. Gilkerson*  
K. O. Gilkerson Date 07/31/97

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

10 Recommended Actions: (Not required for PR)  
Either provide a rationale for use of equal standards in accordance with procedure ; or, evaluate the acceptable tolerance requirements for the furnaces and the standards and modify the procedures as necessary.

11 QA Review:  
QAR *K. O. Gilkerson* Date 7/31/97

12 Response Due Date  
20 working days from issuance

13 Director, OOA Issuance Approval: (QAR for PR)  
Printed Name KENNETH O Gilkerson Signature *Kenneth O Gilkerson* Date 7/31/97

22 Corrective Actions Verified  
QAR *K. O. Gilkerson* Date 10/1/97

23 Closure Approved by: (N/A for PR)  
DOQA *N/A* Date

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PERFORMANCE/DEFICIENCY REPORT RESPONSE

14 Remedial Actions:

SEE ATTACHMENT 1

15 Extent of Condition: (Not required for PR)

SEE ATTACHMENT 1

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:

9-30-97

19 Response by:

*M. J. Cleary*

Date 10 SEPT. 97

Phone 505.665.1454

20 Response Accepted

QAR

*L. M. Silberman* Date 9/24/97

21 Response Accepted (N/A for PR)

DODA

*n/a*

Date

ATTACHMENT 1  
CORRECTIVE ACTION RESPONSE  
YM-97-D-P-016

Remedial Actions:

Applicability of operating ranges for the Thermolyne furnaces and ovens have been reviewed and the accuracy required for the units was adjusted to better reflect the task needs. The furnaces operating ranges have been re-defined and the ranges/accuracy are as follows:

<u>Ovens/Furnaces Operating Range</u>	<u>Calibration Accuracy</u>
$\leq 500^{\circ} \text{ C}$	$5^{\circ} \text{ C}$
$> 500^{\circ} \text{ C}$	$10^{\circ} \text{ C}$

The accuracy requirement for the above equipment has also been reviewed and the following is the standard (YMP Long Thermocouple #67132) accuracy that has been determined as appropriate for calibration of the equipment:

<u>Temperature Range</u>	<u>Standards Accuracy</u>
$\leq 500^{\circ} \text{ C}$	$\leq 4^{\circ} \text{ C}$
$> 500^{\circ} \text{ C}$	$\leq 9^{\circ} \text{ C}$

Extent of Condition:

This was an isolated condition and a review of the calibration data for the standard noted that the actual calibration accuracy achieved was  $3^{\circ} \text{ C}$ , well within the accuracy of  $5^{\circ} \text{ C}$  that was required at the time. Based on this review results it was determined that there was no adverse impact to quality.

Action to Preclude Recurrence:

None required.

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PR/DR CONTINUATION PAGE

Verification of Corrective Action for Performance Report (PR) YM-97-P-016

The verification of PR YM-97-P-016 is complete. K. O. Gilkerson (OQA/QATSS) conducted a review of the following LANL Record Packages and found that the required calibration tolerances for Thermolyne Furnaces/Ovens and calibration standards were changed to comply with the corrective action commitments of the PR. An examination of subject equipment at Los Alamos by the LANL OQA on-site representative disclosed that the subject equipment were tagged "out of service" and reflected the required traceability information.

Record Identifier M&TE

SN41200331	M&TE Report Thermolyne Furnace Type 30400 SN 41200331
PN817065	M&TE Report Thermolyne Furnace Type 47900 PN 817065
PN707058	M&TE Report Thermolyne Furnace Type 30400 PN707058
PN6453287	M&TE Report Thermolyne Oven Series 9000 PN 6453287
PN6453288	M&TE Report Thermolyne Oven Series 9000 PN 6453288
SN671322	M&TE Report Omega 450 AKT Digital Thermometer SN671322
"LONG"	M&TE Report Omega Thermocouple probe "LONG"
SN93121228	M&TE Report Omega 450 AKT Digital Thermometer SN93121228
"LONG2"	M&TE Report Omega Thermocouple probe "LONG2"

This verification was conducted on 10/1/97.

  
Kenneth O. Gilkerson, QAR

10/3/97  
Date