

Department of Energy  
Washington, DC 20585

MAR 3 1989

Mr. John Linehan, Director  
Repository Licensing and  
Quality Assurance Directorate  
Division of High-Level  
Waste Management  
Office of Nuclear Materials  
Safety and Security  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Linehan:

At the July 7, 1988, meeting between the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) on Quality Assurance (QA), the DOE committed (QA-G-2) to provide the NRC with reports on the corrective actions taken regarding NRC observations of the Los Alamos National Laboratory QA program and status of the implementation and verification of these actions.

Enclosed is the report of the Yucca Mountain Project Office QA Surveillance YMP-SR-89-002 which was conducted at the Los Alamos offices in Los Alamos, New Mexico, on November 29, 1988. This report is the third in a series of monthly reports that update Los Alamos implementation and verification of corrective actions taken to close out the NRC deficiencies and findings.

Both the NRC-cited deficiencies and the Los Alamos corrective actions necessary to resolve the deficiencies are stated in the Los Alamos Corrective Action Reports (CARs) which are contained as attachments to Surveillance Reports YMP-SR-88-014 and YMP-SR-88-018. This surveillance report contains the status of implementation and verification of corrective actions for each CAR by identifying the items verified as closed, and the items remaining open. Enclosure B to the surveillance report contains the documentation that supports closure of the corrective action items.

As a result of this surveillance, no additional CARs were verified as being closed; however, the surveillance team did partially verify portions of the remaining open CARs. Thirteen of the original seventeen CARs generated as a result of the NRC-cited deficiencies remain open.

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PDR WASTE  
WM-11 FDC

WM-1  
102.7  
102

If you or your staff have any questions, please feel free to call me on 586-6046 or Gordon Appel on 586-1462.

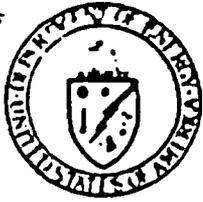
Sincerely,



Ralph Stein  
Associate Director for Systems  
Integration and Regulations  
Office of Civilian Radioactive  
Waste Management

Enclosures: As stated

cc: J. Kennedy, NRC  
B. J. Youngblood, NRC



**Department of Energy**

Nevada Operations Office

P. O. Box 98518

Las Vegas, NV 89193-8518

**FEB 13 1989**

**WBS # 1.2.9.3**

**"QA"**

**Ralph Stein, Associate Director, Systems Integration and Regulations, HQ  
(F&T-30) FORS**

**RESPONSE TO ACTION ITEMS RESULTING FROM THE JULY 7, 1988, TECHNICAL MEETING  
WITH THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) CONCERNING QUALITY  
ASSURANCE (QA)**

**Reference: Letter, Stein to Distribution, dtd. 7/27/88**

The subject meeting resulted in the closure of many action items, and in agreement on a common list of open items. Action Item 29 from Enclosure B of the referenced meeting summary requested that the Yucca Mountain Project Office (Project Office) "provide Ralph Stein with the identification of corrective actions taken regarding the NRC audit observations of the Los Alamos National Laboratory (Los Alamos) QA program and a monthly status of the implementation and verification of these items."

Enclosed is the report of the Project Office QA Surveillance YMP-SR-89-002 which was conducted at the Los Alamos offices in Los Alamos, New Mexico, on November 29, 1988. One of the purposes of this surveillance (see section 3.3 of the enclosed report) was to verify Los Alamos implementation of corrective actions necessary to close the deficiencies identified in the June 8, 1987, NRC Mini-Audit. This report is the third in a series of monthly reports that will update Los Alamos implementation and verification of corrective items taken to close out the NRC Mini-Audit deficiencies and findings.

Both the NRC-cited deficiencies and the Los Alamos corrective actions necessary to resolve the deficiencies are stated in the Los Alamos Corrective Action Reports (CARs) which are contained as attachments to Surveillance Reports YMP-SR-88-014 and YMP-SR-88-018. This surveillance report contains the status of implementation and verification of corrective actions for each CAR by identifying the items verified as closed, and the items remaining open. Enclosure B to the surveillance report contains the documentation that supports closure of the corrective action items.

As a result of this surveillance, no additional CARs were verified as being closed; however, the surveillance team did partially verify portions of the remaining open CARs. Thirteen of the original seventeen CARs generated as a result of the NRC-cited deficiencies remain open.

Ralph Stein

-2-

FEB 13 1989

If you have any questions, please contact Wendell B. Mansel of my staff at (702) 794-7945 or FTS 544-7945 or John R. Doyle of the Technical and Management Support Services at (702) 794-7190 or FTS 794-7190.



Carl P. Gertz, Project Manager  
Yucca Mountain Project Office

YMP:JB-2061

Enclosure:  
Surveillance Report YMP-SR-89-002

cc w/encl:

L. H. Barrett, HQ (RW-3) FORS  
S. H. Kale, HQ (RW-20) FORS  
S. H. Klein, SAIC, Las Vegas, NV  
Stephen Metta, SAIC, Las Vegas, NV  
D. M. Dawson, SAIC, Las Vegas, NV  
E. P. Ripley, SAIC, Las Vegas, NV  
J. R. Doyle, Harza, Las Vegas, NV  
D. T. Oakley, LANL, Los Alamos, NM  
H. P. Nunes, LANL, Los Alamos, NM  
E. L. Wilmot, YMP, NV  
C. E. Hampton, YMP, NV  
James Blaylock, YMP, NV  
W. B. Mansel, YMP, NV

ENCLOSURE A-1 OF A-4

LOS ALAMOS

A1, 1 of 4

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

# memorandum

TO Pat Tillery, LATA, MS M321  
THRU *Wayne Morris* Wayne Morris, ESS-1  
FROM *Larry Maassen* Larry Maassen  
SUBJECT RESPONSE TO AUDIT NO. LANL-NNWSI-88-03

DATE March 14, 1988  
MAR 27 1988 TELEPHONE D462/7-1691  
TWS-ESS-1-3/88-18  
Page 1 of 4  
SYMBOL ESS-1

Attached are our responses to audit findings generated as a result of Audit No. LANL-NNWSI-88-03. Since the Audit Finding Report Form is inadequate to address the considerations stipulated in the audit report cover letter, the responses for each finding will be addressed separately on the following pages and may be attached to the appropriate Audit Finding Report form.

The responses will address the following (as required by Memo TWS-N5/02-88-71) and will be numbered as below:

- (1) steps taken to address the specific deficiency,
- (2) the date when the steps will be completed,
- (3) the root cause of the deficiency,
- (4) the steps taken to prevent a recurrence, and
- (5) the date when this process will be accomplished.

LM:mj

DISTRIBUTION: (all w/enc.)

H. Nunes, LATA, MS M321  
K. West, N-5, MS J521  
W. Morris, ESS-1, MS D462  
D. Vanniman, ESS-1, MS D462  
TWS File, MS D462  
TWS Audit File, MS D462  
RPC File, MS J521 (2)  
ESS-1 File

MAR 16 1988  
Received LHM  
LHM

A1, 2 of 4

Response

Finding No. 1.

Audit No. LANL-NNWSI-88-03

1. Document packages and attachments for reports readied for publication since Jan. 1, 1988 will be sent to the NNWSI RPC. (Records up to that point should be complete. See memo TWS-ESS-1-12/87-11).
2. April 30, 1988
3. QP-07, R2, Section 5.0 states, "A copy of the completed document and all attachments will be maintained by the author in the Resident File, and the author will send a copy of the complete document review package to the LANL NNWSI Records Center Manager." Thus, the authors of these documents are inadequately trained in their responsibilities as stated in this procedure.
4. ESS-1 authors shall be given training for QP-07 by the QAL.
5. ESS-1 authors shall be trained to QP-07 by April 30, 1988.

A1, 3 of 4

Response

Finding No. 2

Audit No. LANL-NNWSI-88-03

1. All thin section request forms and logging information shall be sent to the NNWSI RPC.
2. April 30, 1988
3. There is no provision in the Thin Section Preparation procedure to address transfer of records due to failure of QAL, QAS, and QAPL to recognize this deficiency in their review of this procedure.
4. Change requests will be submitted to address transfer of records in compliance with Section 4.1.3 of QP-09.
5. April 30, 1988

A1, 4 of 4

Response

Finding No. 3

Audit No. LANL-NNWSI-88-03

PART 1

Confusing as written and cannot be appropriately addressed. I assume the requirement is in QP-03, R7. I also assume the field notebook examined is TWS-ESS-1-7/86-43. However, this notebook does not contain loose-leaf data and it does have an assigned TWS number. Please clarify, stating requirement and manner in which this requirement was violated.

PART 2

Confusing as written and cannot be appropriately addressed. Please clarify, stating requirement and manner in which this requirement was violated.

# Los Alamos Yucca Mountain Project CORRECTIVE ACTION REPORT

Initiator: Signature/Organization/Phone A. M. Pendergrass, LATA, 662-9080		CAR No: 050, R1 Initiation Date: December 2, 1988 QA Level: 1
Title of Work to which CAR Applies: Controlled Distribution of September 26, 1988		
Condition Requiring Corrective Action:  See attached, Page 1 of 2.		
Corresponding Documentation: Controlled Distribution of September 26, 1988 LANL Amended responses to NRC Miniaudit, TWS-N5/08-88-72		
Assigned To: H. P. Nunes <i>H. P. Nunes</i>		Date: <del>December 2, 1988</del> <sup>November 29, 1988</sup>
Cause and Recommended Corrective Action:  See attached responses, Pages 1 and 2 of 2.		
QAPL Concurrence: DOE ORDER 50003, UOR REQUIRED	<i>H. P. Nunes</i> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Date: Nov. 29, 1988
Corrective Action Completed:	<i>H. P. Nunes</i>	Date: 11/29/88
Implementation Verified By:	<i>James George / James George</i>	Date: 12/6/88
CAR Closeout:	<i>James George / George</i>	Date: 12/6/88

CAR NO. 050 R1

REQUIREMENT

LANL-YMP-QAPP,R2 - Section 3.4 Technical Reviews:

"Technical reviews are performed by LANL per a LANL implementing procedure that defines the following:

- the general requirements for the review,
- the criteria for selection of the technical reviewers,
- the procedure for the technical review, and
- the method of review documents."

TWS-QAS-QP-05.1, R1, Preparation of a Quality (Administrative) Procedure Section 5.5 Review:

"The draft QP will be submitted to the QALs for review and comment. The review, comment, and resolution process shall be accomplished by means of the Document Review Sheet (Attachment 1) or its equivalent."

TWS-QAS-QP-19, R0, YMP Change Requests, Section 4.4 (contained in CR 028):

"Reviews for change requests (CRs) to quality procedures (QPs) shall be conducted as reviews for the original QPs — that is, the draft CR will be submitted to the Quality Assurance Liaisons for review and comment. The review, comment, and resolution process shall be accomplished and documented by using the Document Review Sheet or its equivalent."

CONDITION REQUIRING CORRECTIVE ACTION

The controlled distribution of September 26, 1988, to the holders of LANL's YMP QA manuals contained the following documents which had not been reviewed according to the applicable procedures

- TWS-QAS-QP-17.1, R0, Records Management Procedure and
- CRs No. 043 through 052.

Because these documents had not been reviewed as required, their approval and subsequent issue as controlled distribution was improper.

CAUSE AND RECOMMENDED CORRECTIVE ACTION

## 1. Root Cause Determination

The root cause was determined as the incomplete application of existing Yucca Mountain Project requirements, in an effort to resolve the outstanding issues from the NRC miniaudit expeditiously.

## 2. Corrective Action for the Specific Deficiency

The documents distributed without proper review and approval, QP-17.1, R0, and CRs 043 through 052, were withdrawn and a letter (attached) notifying YMP was sent 28 September 1988. The draft copies of CRs 043 through 052 were resubmitted on 29 September 1988 for review and comment to be received by 9/30/88 and a copy of the memorandum to resubmit the CRs is attached.

A-4, 3 of 33

Page 2 of 2

Change request 049 was withdrawn and will not be reissued. QP-17.1 is being revised according to the LANL YMP QA Procedures Development Schedule and Status.

Although the CRs will not be reissued, the review comments will be incorporated in the revised QPs.

A-4, 4 of 33

# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

## memorandum

TO Distribution DATE September 28, 1988

FROM H. P. Nunes, QAPL MAIL STOP/TELEPHONE J521/7-8039

SYMBOL TWS-N5-09-88-085

SUBJECT LANL YMP QA MANUAL REVISIONS

Enclosed are revisions for inclusion into the QA Manual. Also included is a receipt acknowledgement form which gives instructions for revising the manual.

If you have any questions, please call Karen Foster at LATA, 662-1763.

JJG/lde

Enclosure: a/s

Distribution:

D. L. Bish, ESS-1, MS D462  
D. E. Broxton, ESS-1, MS D462  
F. M. Byers, ESS-1, MS D462  
B. H. Carlos, ESS-1, MS D462  
M. R. Cisneros, INC-11, MS J514  
B. M. Crowe, INC-7, MS J514  
C. J. Duffy, INC-7, MS J514  
S. Dye, INC-7, MS J514  
K. G. Eggert, ESS-5, MS F665  
E. H. Essington, HSE-12, MS K495  
S. D. Francis, WX-4, MS G787  
A. L. Gauler, MEC-8, MS D474  
C. D. Harrington, ESS-1, MS-D462  
L. E. Hersman, LS-2, MS M890  
D. E. Hobart, INC-11, MS G739  
A. R. Jenkins, MAT-3, MS P274  
M. Jones, ESS-1, MS D462  
F. O. Lawrence, INC-11, MS J514  
S. S. Levy, ESS-1, MS D462  
D. A. Mann, ESS-1, MS D462  
L. W. Maassen, ESS-1, MS D462  
T. J. Merson, WX-4, MS G787  
A. Mitchell, INC-11, MS J514  
L. Mitchell, INC-7, MS J514  
W. A. Morris, ESS-1, MS D462  
C. W. Myers, ESS-1, MS D446

(continued on reverse side)

Distribution

TWS-N5-09-88-085

September 28, 1988

Page 2

A. E. Norris, INC-7, MS J514  
D. T. Oakley, N-5, MS J521  
B. A. Robinson, ESS-4, MS J981  
F. Schilling, WX-DO, MS P945  
B. J. Skaggs, HSE-5, MS K494  
K. W. Thomas, INC-11, MS J514  
D. T. Vaniman, ESS-1, MS D462  
H. P. Nunes, N-5, MS J521  
W. Woodruff, INC-4, MS C345  
D. York, WX-4, MS G787  
QAS file, MS M321  
RPC (3), MS J521

# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

September 28, 1988

TWS-N5-09-88-086

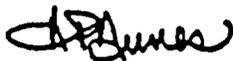
J. Blaylock, YMPO, Las Vegas, NV  
H. Fuentes, UofT, El Paso, TX  
L. Ibe, Weston, Washington, DC  
H. Kalla, LANL-YMP, Las Vegas, NV  
J. Kennedy, NRC, Washington, DC  
B. Klein, Sr., SAIC, Las Vegas, NV  
R. Loux, Jr., NANP, Carson City, NV  
M. McGowan, LATA, Los Alamos, NM  
H. Nitsche, LBNL, Berkeley, CA  
A. Pendergrass, LATA, Los Alamos, NM  
F. Perry, UNM, Albuquerque, NM  
W. Roper, Jr., EG&G, Las Vegas, NV  
K. Sommer, DOE, Washington, DC  
P. Tillery, LATA, Los Alamos, NM  
SAIC, Records Center, Las Vegas, NV

**SUBJECT: LANL YMP QA MANUAL REVISIONS**

Enclosed are revisions for inclusion into the QA Manual. Also included is a receipt acknowledgement form, which gives instructions for revising the manual.

If you have any questions, please call Karen Foster at LATA, 505-662-1763.

Sincerely,



H. P. Nunes

JJG/ldc

Enclosures: 2/s

Cy: RPC (3), w/o enc., MS J521  
CRM-4 (2), w/o enc., MS A150

A-4, 7 of 33

Receipt Acknowledgment  
September 28, 1988  
Page 1 of 2

TO: K. L. Foster  
Los Alamos National Laboratory  
LATA QAS, MS-M321  
Los Alamos, NM 87545

FROM: \_\_\_\_\_  
(Please Print)

Book Number: \_\_\_\_\_

SUBJECT: ACKNOWLEDGEMENT OF RECEIPT OF LANL YMP QA  
MANUAL ADDITIONS AND/OR REVISIONS.

Enclosures: Table of Contents (September 28, 1988)  
Program Index (September 28, 1988)

I have received and made the revisions/additions to my assigned copy of the LANL YMP QA Manual as outlined below.

VOLUME I

<u>Replace</u>	<u>Procedure No.</u>	<u>With</u>	<u>Procedure No.</u>
	Table of Contents (September 21, 1988)		Table of Contents (September 28, 1988)
	QA Program Index (September 21, 1988)		QA Program Index (September 28, 1988)
<u>Remove</u>	<u>Procedure No.</u>		
	CR No. 043	(located in front of QP-14, R1)	
	CR No. 044	(located in front of QP-04.3, R0)	
	CR No. 045	(located in front of QP-04.1, R0)	
	CR No. 046	(located in front of QP-04.1, R0)	
	CR No. 047	(located in front of QP-04.3, R0)	
	CR No. 048	(located in front of QP-13.1, R0)	
	CR No. 049	(located in front of QP-19, R0)	
	CR No. 050	(located in front of QP-02.1, R0)	
	CR No. 051	(located in front of QP-05.2, R0)	
	CR No. 052	(located in front of QP-04.1, R0)	
	TWS-QAS-QP-17.1, R0	(located behind QP-17, R0)	

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Receipt Acknowledgment  
September 28, 1988  
Page 2 of 2

VOLUME II

<u>Replace</u>	<u>Procedure No.</u>	<u>With</u>	<u>Procedure No.</u>
	Table of Contents (September 21, 1988)		Table of Contents (September 28, 1988)
	QA Program Index (September 21, 1988)		QA Program Index (September 28, 1988)

VOLUME III

<u>Replace</u>	<u>Procedure No.</u>	<u>With</u>	<u>Procedure No.</u>
	Table of Contents (September 21, 1988)		Table of Contents (September 28, 1988)
	QA Program Index (September 21, 1988)		QA Program Index (September 28, 1988)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

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# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

## memorandum

TO Distribution DATE September 29, 1988  
FROM H. P. Nunes *CR* MAIL STOP/TELEPHONE J521/7-8039  
SYMBOL TWS-N5-09-88-077  
SUBJECT REVIEW OF CHANGE REQUESTS NOS. 043 THROUGH 052 AND  
TWS-QAS-QP-17.1, R0

During the NRC miniaudit many deficiencies in the LANL-YMP quality assurance program became apparent. The Quality Assurance Support (QAS) staff, with input from YMP contractor, SAIC, has been addressing as many of these deficiencies as possible. YMP will forward the resolution of these deficiencies to DOE, who in turn will forward the resolution to the NRC. The enclosed Change Requests (CRs) have been drafted to address some of the deficiencies. We must have reviews by you before we can issue these documents, to be in compliance with our requirements.

Also enclosed is TWS-QAS-QP-17.1, R0. Again, we request that you review and comment on this QP so that we can issue it in compliance with the Project requirements.

Please put your review comments on the appropriate enclosed review and comment sheets. As always, make suggested changes in a statement form. For QA records, please address all CRs and QP-17.1, even if it is only a statement that indicates no comment. Return review and comment sheets to Karen Foster, LATA, MS M321, by October 21, 1988.

Your comments will be addressed, and appropriate changes will be made to these documents. A copy of your document review sheets, showing resolution of your comments, will be returned to you. Please refer questions to me or Jim George at 662-1753.

PMT/ejs

Enclosures: 2/s

Distributions:  
K. Campbell, A-1, MS F600  
B. Dye, INC-7, MS J514  
K. G. Eggert, ESS-5, MS F665  
E. H. Essington, HSE-12, MS J495  
J. J. George, LATA, MS M321  
L. E. Hersman, LS-2, MS M890  
A. R. Jenkins, MAT-3, MS P274

(distribution continued on next page)

A-A, 10 OF 33

Distribution  
TWS-N5-09-88-077  
September 29, 1988  
Page 2

Distribution (continued):  
L. W. Maassen, ESS-1, MS D462  
M. F. McGowan, LATA, MS M321  
A. M. Pendergrass, LATA, MS M321  
P. M. Tillery, LATA, MS M321

Cy: D. T. Oakley, w/o enc., MS J514  
R. J. Herbst, w/o enc., MS J514  
QAS file, MS M321  
RPC (3), MS J521

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LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 043

Date 8-18-88

Procedure No. TWS-MSTOA-OP-14.R1

Change Requested: In section 3.1.1

1. After "Equipment and material to be used," add "When referencing the equipment used use the property number (preferable) or the serial number. Equipment and materials should be identified to an extent that the identification will allow others to identify the equipment used."
2. Under "Daily Entries... Sample... Identification..." delete "and history... experimenter's possession."

Reason for Change:

In response to the NRC-Mini Audit, auditors and principal investigators had difficulty in understanding what information was actually being requested.

Response to CAR No. 029 from NRC Mini-audit.

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 044  
Date 8-18-88

Procedure No. TWS-QAS-QP-04.3 "Qualification of Suppliers for Engineered Items and Services"

Change Requested:

Add Section 5.3 Procurement Documentation

All procurements for engineered items and services must be made following the requirements contained in TWS-QAS-QP-04.1. In particular, the QAL will review procurement documents to determine whether the following requirements are met:

- QA requirements are correctly stated,
- there are adequate acceptance and rejection criteria, and
- procurement documents have been prepared, reviewed, and approved by an appropriate technical individual.

If the procurement is for QA Level III or commercial grade, the QAL's signature and date on the PR documents review and concurrence with these requirements.

If the procurement is not commercial grade or QA Level III, the QAL's review will be documented using NNWSI Project document review sheets which will become QA records. Concurrence will be documented by the QAL's signature and date on the purchase request form after resolution of all comments on the document review sheets.

Reason for Change:

Response to CAR No. 027 from NRC Mini-audit.

Change Requested By \_\_\_\_\_ Date August 18, 1988

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 045

Date 8-18-88

Procedure No. TWS-QAS-QP-04.1 R0 "NNWSI Procurement Procedures"

**Change Requested:**

Add Section 5.3 Procurement Documentation

All procurements for engineered items and services must be made following the requirements contained in TWS-QAS-QP-04.1. In particular, the QAL will review procurement documents to determine whether the following requirements are met:

- QA requirements are correctly stated,
- there are adequate acceptance and rejection criteria, and
- procurement documents have been prepared, reviewed, and approved by an appropriate technical individual.

If the procurement is for QA Level III or commercial grade, the QAL's signature and date on the PR documents review and concurrence with these requirements (on Attachment 4).

If the procurement is not commercial grade or QA Level III, the QAL's review will be documented using NNWSI Project document review sheets which will become QA records. Concurrence will be documented by the QAL's signature and date on the purchase request form after resolution of all comments on the document review sheets.

**Reason for Change:**

Response to CAR No. 027 from NRC Mini-audit.

Change Requested By \_\_\_\_\_ Date August 18, 1988

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

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CAR Response (No. 027)  
CR No. 045

**Change Requested:**

If the procurement does not meet QA Level III or commercial grade specifications, the QAL will document review and comments to the procurement documentation on NNWSI Project document review sheet(s). the requester must resolve all comments and resubmit the procurement document package to the QAL. The QAL will document review and acceptance of all requirements by signing and dating the QA level assignment designation on the PR (Attachment 4).

Change present Section 6.1.7 to 6.1.8

Add Section 6.1.7

**6.1.7 Document Review Sheet**

If document review sheets are used by the QAL, to document review of non-commercial grade procurement specifications, the completed forms showing comment resolution by the requester, become part of the project records for the procurement. The forms must be attached to other procurement documentation and placed in the group Resident File.

A-4, 15 OF 33

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 046

Date 8-26-88

Procedure No. TWS-QAS-QP-04.1 R0. "NNWSI Procurement Procedures"

**Change Requested:**

Renumber the present Section 6.1.6 as 6.1.7

Add: 6.1.6 Documents Generated by Suppliers

Any form, content, and submission requirements that apply to documents generated by suppliers are stipulated in procurement documents. After being received by the requestor, these documents become a part of the LANL NNWSI Project records. Documents generated under a service procurement are evaluated following procedures described in TWS-QAS-QP-04.2 and are controlled following the administrative procedure on document control. Analysis sheets and certificates of calibration are placed in the group resident file. Single analysis sheets may be attached in scientific notebooks at the discretion of the requestor.

**Reason for Change:**

Response to CAR No. 034, REV. 1 from NRC miniaudit.

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

A-4, 16 of 33

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 047  
Date 8-19-88

Procedure No. TWS-OAS-OP-04.3

**Change Requested:**

Add to last of Paragraph 4.3:

The QAPL or his delegate shall review the Approved Vendors List (AVL) annually to determine which suppliers should be re-evaluated. The need for re-evaluation shall be based on the relative importance, complexity, and quality of the item or service procured, as well as on the supplier's performance as measured by audits and surveillances. The QAPL or delegate shall record this evaluation by issuing a list of suppliers requiring re-evaluation.

The results of evaluations and re-evaluations shall be recorded and shall become a QA record.

**Reason for Change:**

Response to CAR No. 033 from NRC mini-audit

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

A-4, 17 OF 33

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 048  
Date 8-19-88

Procedure No. TWS-QAS-OP-13.1 R0

**Change Requested:**

Delete from Section 5.3:

- "provide periodic reviews of storage procedures and facilities;"

Add to Section 4.0:

If the provisions of this QP should be addressed in a currently active DP and are not, the PI responsible for the DP shall issue a corrective action report to document the deficiency and to initiate remedial measures. The PI is responsible for having corrective action implemented in a timely fashion.

**Reason for Change:**

- Reviews are not required in NNWSU/88-9
- Remedial measures are not addressed in the procedure
- Response to CAR No. 040 from NRC mini-audit

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

A-4, 18 OF 33

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 049

Date 8-19-88

Procedure No. TWS-MSTOA-OP-19.R0

**Change Requested:**

**Add to Paragraph 4.4:**

When approved by the QAPL or TPO, change requests can be issued on short notice to accommodate minor procedural changes. A review of the change request will be performed via telephone with the QAL or technical designee for each participant group; this review will be recorded on a Record of Verbal Communication and Direction form before the change request is issued. The resulting comments shall be resolved.

**Reason for Change:**

It is occasionally necessary to expedite the approval of change requests to accommodate minor procedural changes.

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_

LOS ALAMOS NATIONAL LABORATORY  
YMP  
CHANGE REQUEST

Change Request No. 050 Rev 1  
Date 9-29-88

Procedure No. TWS-QAS-OP-02.1 R0 "NNWSI Personnel Selection, Training, and Certification"

**Change Requested:**

Replace the entire Subsection 5.2.1, "Job Assignments," with the following:

5.2.1 Position Descriptions

Yucca Mountain Project position descriptions shall specify minimum education and experience requirements for each position that involves the performance of activities affecting quality.

In the following places, replace "job assignments" with "position descriptions."

2.0 (twice); 5.2.3; 4.1; 5.2.2 (twice); Requirements Chart; resume form, Page 2.

Delete the entire Subsection 6.1.3, "Job Assignments," and delete the same subsection as it applies in the Requirements Chart.

Replace the first two sentences of Subsection 5.4.4 with the following:

5.4.4 Preparing Position Descriptions

The QAPL, with the assistance of the QAS, shall prepare position descriptions for the Technical Project Officer (TPO), QAPL, QAS, and QAL positions. The position descriptions must specify minimum education and experience requirements, as well as responsibilities, for each position.

(continued)

**Reason for Change:**

This change will bring QP-2.1, R0 into compliance with YMP/88-9.

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_

**Change Requested: (concluded)**

Add the following sections:

**5.5 Division Leader Requirements**

The Division Leader or designee shall prepare position descriptions for the PI positions. The position descriptions must specify minimum education and experience requirements, as well as responsibilities, for each position.

**5.6 PI Responsibilities**

The PI shall prepare position descriptions for scientific investigators, the record file custodian, technical support staff, and any other positions that the PI supervises in performing Project activities. The position descriptions must specify minimum education and experience requirements, as well as responsibilities, for each position.

A-4, 21 of 33

LOS ALAMOS NATIONAL LABORATORY  
NNWSI  
CHANGE REQUEST

Change Request No. 051

Date 8-22-88

Procedure No. TWS-OAS-OP-05.2.R0. "Preparation of a Detailed Technical Procedure"

Change Requested: Add the following definitions:

4.2 Independent

For a technical review to be independent, it must be conducted by qualified personnel outside the WBS under which the work had been performed, or it must be conducted by personnel not directly involved in the particular activity that produced the work, document, or procedure.

4.3 State of the Art

Refers to a technique, approach, or equipment used in scientific investigations that is not yet widely documented or widely used by scientists working in the discipline but that is expected to produce better results than older techniques, approaches, or equipment.

Insert:

6.5 "independent" before "technical review" in the first sentence.

Reason for Change:

Response to CAR No. 030, R1, from the NRC miniaudit.

Change Requested By \_\_\_\_\_ Date \_\_\_\_\_

Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

QAPL Approval \_\_\_\_\_ Date \_\_\_\_\_

TPO Approval \_\_\_\_\_ Date \_\_\_\_\_

Effective Date \_\_\_\_\_ Date \_\_\_\_\_



QA LEVEL ASSIGNMENT AND COMMERCIAL-GRADE CHECKLIST

TWS-QAS-QP 04  
ATTACHME

PR No. \_\_\_\_\_

QA LEVEL ASSIGNMENT FOR ITEMS AND SERVICES

QA LEVEL

(CIRCL

- 1. Is the item or service to be used in an activity that is assigned QA Level I?  NO ↓  YES → I
- 2. Is the item or service to be used in an activity that is assigned QA Level II?  NO ↓  YES → II
- 3. Is the item or service to be used in an activity that is assigned QA Level III?  NO  YES → III
- 4. Is the requested item or service to be assigned a QA Level different from that of the activity for which it will be used? State the QA Level and provide a justification statement.  
 QA Level for item or service \_\_\_\_\_  
 QA Level for activity \_\_\_\_\_ Activity WBS No. \_\_\_\_\_

Justification (Refer to TWS-MSTQA-QP-18, R1 and its Checklist, Attachment 1):

LEVEL I OR II COMMERCIAL GRADE ITEM CHARACTERISTICS

COMM

NON-COMM

- 1. Item is not subject to design or specification requirements that are unique to mined geological disposal systems?  YES ↓  NO → \_\_\_\_\_
- 2. Item is used in applications other than mined geological disposal systems?  YES ↓  NO → \_\_\_\_\_
- 3. Item is to be ordered from the manufacturer/supplier on the basis of specifications set forth in the manufacturer's published product description (for example, catalog)?  YES ↓  NO → \_\_\_\_\_

COMMERCIAL GRADE - WHEN THE ANSWERS TO ALL QUESTIONS ABOVE ARE "YES"

SIGNATURE OF QAL \_\_\_\_\_ DATE \_\_\_\_\_

EQUIPMENT ACCEPTANCE TEST REQUIRED/WANTED

COMMENTS ON REVERSE



A-4, 25 OF 33

TWS-QAS-QP-17.1, R0  
September 19, 1988

**LANL GROUP RESIDENT FILE PROCEDURES**

Effective Date: \_\_\_\_\_

\_\_\_\_\_  
**R. J. Herbat**  
Preparer

\_\_\_\_\_  
Date

\_\_\_\_\_  
**G. Ortiz**  
Technical Reviewer

\_\_\_\_\_  
Date

\_\_\_\_\_  
**H. P. Nunes**  
Quality Assurance Project Leader

\_\_\_\_\_  
Date

\_\_\_\_\_  
**D. T. Oakley**  
Technical Project Officer

\_\_\_\_\_  
Date

**LANL GROUP RESIDENT FILE PROCEDURES****1.0 PURPOSE**

This quality administrative procedure (QP) describes the system by which laboratory groups, working in support of the Los Alamos National Laboratory (LANL) Yucca Mountain Project (hereafter referred to as Project), store, preserve, identify, and distribute Project records. This system ensures that LANL groups comply with the requirements established for the management of Project records.

**2.0 SCOPE**

This QP applies to both in-process and completed Project records and to each LANL participating group and its subcontractors. This QP is effective as of the date from when it is signed by the Technical Project Officer (TPO). It will remain in effect throughout the life of the Project or until it is revised or rescinded.

**3.0 DEFINITIONS**

- 3.1 Document.** Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results.
- 3.2 One-of-a-Kind Record.** Project records that cannot be readily or conveniently duplicated or microfilmed. One-of-a-kind records include photographic negatives, radiographic films, multicolored maps, map overlays, and magnetic media.
- 3.3 Record Package.** Two or more related records that are combined and processed as a single record.
- 3.4 Record Source.** Any individual who originates Project Records or receives Project Records from an entity outside the Project.
- 3.5 Completed Record.** Project records that are not expected to be changed or to be further revised by the record source. Completed records include drafts that the record source proposes or offers for formal review and for comment or approval.
- 3.6 Working File.** Files kept or created by a record source.
- 3.7 Resident File.** Files of Project records only. These files are maintained by a custodian appointed by each Laboratory group.
- 3.8 Records Processing Center.** The central processing center and repository for Project records at Los Alamos. The Records Processing Center (RPC) is operated and staffed by LANL group N-5.

**4.0 RESPONSIBILITIES****4.1 Record Source**

The record source is responsible for determining whether a record is a "Project record" and for submitting each completed Project Record to the resident file custodian on a timely basis.

#### 4.2 Resident File Custodian

The resident file custodian is responsible for receiving Project records from each record source and for maintaining and controlling the resident file. The coordination and protection of all group Project records, including the retention, distribution, maintenance, and disposition of the records, is the responsibility of the resident file custodian.

#### 4.3 Group Leader

The group leader is responsible for naming a resident file custodian and an alternate, and for implementing this QP within the group.

#### 4.4 Quality Assurance Support Staff and Quality Assurance Liaison

Quality Assurance Support (QAS) staff members, in cooperation with the RPC, are responsible for training LANL group members in the use of this QP. QAS staff members are also responsible for conducting periodic surveys and audits to verify compliance with this QP and with records management requirements. The Quality Assurance Liaison (QAL) is responsible for record authentication.

### 5.0 PROCEDURE

#### 5.1 Group Leader

Designate, through a memorandum to the TPO, one group member and an alternate to serve as the Project resident file custodian for the group.

#### 5.2 Record Source

5.2.1 Originate Project records as required by scientific investigation, design, or software development planning documents; Project or N-5 plans and administrative procedures; and detailed technical procedures. Number each page of each record "n of N," where n is the page number and N is the total number of pages comprising the record.

5.2.2 Receive records from entities outside the Project. Decide which records are Project records. Number each page of each Project record as described in Subsection 5.2.1.

5.2.3 Identify Project records. Obtain an alphanumeric identifier for each Project record from the resident file custodian. Apply the identifier to each page of each Project record. Indicate the Work Breakdown Structure element to which the record applies on the first page of each record. Indicate on the first page of each record the Quality Assurance Level Assignment (QALA) of the activity or item to which the record relates.

5.2.4 Sign and date completed records.

5.2.5 Promptly transmit completed records to the resident file custodian.

5.2.6 Complete, repair, or replace records rejected by the resident file custodian. Ensure that the required corrections, changes, and supplements do not obliterate other record contents. If the record is irreparable or irreplaceable, mark the record as "best available copy." Promptly transmit completed, repaired, and replaced records to the resident file custodian.

5.2.7 Turn working files over to the custodian

- when the activity is completed,
- when employment has been terminated, or
- when otherwise directed by the Project.

### 5.3 Resident File Custodian

5.3.1 Establish the resident storage file. Provide for the storage and safe-keeping of one-of-a-kind records. NOTE: Maintain one-of-a-kind records until they are requested by the Project Office or until LANL participation in the Project terminates.

5.3.2 Prepare a list identifying personnel permitted access to the resident file. Post the list on the outside of the cabinet or drawer(s). Retain one key to the cabinet and issue a second to the alternate. The contents of the resident file must be limited to NNWSI Project records.

5.3.3 Organize and index the resident storage file. Include the following as elements:

- personnel certification and training records;
- letters;
- memoranda;
- procurement records, including purchase requests and receiving inspection reports;
- records documenting the use of measurement and test equipment;
- QALA sheets;
- study, design, and/or software development plans;
- milestone reports; and
- final technical reports.

Include any additional index elements as required in an effort to facilitate the location and access of records.

5.3.4 Implement a record identification system that is specific to the Project and each LANL participating group. The system must uniquely identify each record. Issue identifiers to record sources. Prepare a log to record the use of the identifiers and to indicate the status of the records to which identifiers have been issued. As a minimum, this status should indicate receipt of the completed records from the record source, acceptance/rejection upon inspection, and transmittal to the RPC.

**5.3.5 Receive the completed record from record sources. Inspect the record for**

- completeness;
- the presence of the identifier, the WBS element number, and the QALA of the related activity or item;
- a title or subject statement;
- the signature of the originator;
- the date of the record; and
- legibility for microfilming.

Return defective records to the record source for correction. Update the status of records accepted for storage and for further processing in the record log.

**5.3.6 Preparation of Record or Record Package for Submission to RPC**

**5.3.6.1 Record Preparation**

Prepare two copies of each record.

**5.3.6.2 Record Package Preparation**

Initiate a Records Package Traveler (Attachment 1) for each Record Package. Enter the date, alphanumeric identification, WBS number, applicable QALA, the title or subject, and the author or record source. Complete the table of contents as indicated. Request the authentication of each Record Package. The QAL is authorized to authenticate records. Obtain the QAL's review, signature, and date. Prepare two copies of each Record Package, attach them to the Records Package Traveler.

**5.3.7 Send two copies of each record or Records Package to the RPC. Update the status of records or Records Packages sent to the RPC in the record log. Note: Only a One-of-a-Kind Record Form (Attachment 2) needs to be prepared and sent or included in Record Packages and sent to the RPC when one-of-a-kind records are received.**

**5.3.8 Verify transmittals to the RPC. On the last working day of each month, send copies of those pages of the record log that describe the status of records processed and sent to the RPC during the month.**

**6.0 QUALITY ASSURANCE REQUIREMENTS**

**6.1 Records**

The record logs prepared and maintained by the resident file custodian and the Record Package Traveler accompanying each Record Package are the quality assurance records that document the use of this QP. The original log and a copy of each traveler are retained permanently by the resident file custodian. Copies of one-of-a-kind record sheets are also retained by the custodian.

## 6.2 Document Control

This QP is distributed as a controlled document and maintained by configuration management. Revisions may be proposed by any LANL group member through a memorandum to the the RPC coordinator or to the Quality Assurance Project Manager. Accepted proposals are implemented by the preparation of a revised procedure that shall be reviewed and approved in the same manner as the superseded version. Approved revisions are distributed by the QAS.

## 7.0 APPLICABLE DOCUMENTS

### 7.1 Requirement Documents

LANL-NNWSI-QAPP, "Los Alamos National Laboratory Quality Assurance Program Plan for NNWSI (Project)."

NNWSI Project Records Management Plan.

NNWSI Project Administrative Procedure, AP-1.7Q, "NNWSI Project Records Management."

### 7.2 Related Procedures

LANL-QAS-QP, "Records Processing Center Procedures."

LANL-QAS-QP Document Control

## 8.0 ATTACHMENTS

Attachment 1, Records Package Traveler  
Attachment 2, One-of-a-Kind Record

LANL YUCCA MOUNTAIN PROJECT RECORDS PACKAGE TRAVELER

Date: \_\_\_\_\_ RP: \_\_\_\_\_  
WBS Identifier

TWS #: \_\_\_\_\_ QA Level: \_\_\_\_\_

Title/subject of the package: \_\_\_\_\_

Author/record source: \_\_\_\_\_

TABLE OF CONTENTS OF THE PACKAGE  
(Use additional page, if necessary)

\_\_\_\_\_ TWS No. \_\_\_\_\_ Title \_\_\_\_\_

RPC validation by: \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_  
(print name)

QAS/QAL authentication by: \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_  
(print name)

### ONE-OF-A-KIND RECORD

IDENTIFICATION \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

DESCRIPTION \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LOCATION (Bldg., Room, File)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

QUALITY LEVEL \_\_\_\_\_

RMS NUMBER (Assigned by RPC) \_\_\_\_\_

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

ORGANIZATION \_\_\_\_\_

The item is not suitable for microfilming and has been stored in its original state or format at this facility. See data base for physical location of this item.



1988 CERTIFICATION/TRAINING REPORT

This report reflects what is missing from each 1988 Yucca Mountain Project (YMP) personnel file. Each file should include a certification form signed by the participant and supervisor, resumes signed by the participant and group leader, a job assignment signed by the PI, and a position description prepared by the QAPL.

Name	Group	Certification	Resume	Job Assignment	Position Description
P. L. Aamodt	ESS-1				X
M. J. Aldrich	ESS-1				X
J. A. Barber	ESS-1				X
D. L. Bish	ESS-1				X
S. L. Boliver	ESS-1				X
D. E. Broxton	ESS-1				X
F. M. Byers, Jr.	ESS-1				X
K. Cambern	ESS-1				X
B. H. Carlos	ESS-1				X
S. J. Chipera	ESS-1				X
B. M. Crowe	ESS-1	X	X	X	X
R. C. Hagan	ESS-1				X
C. Harrington	ESS-1				X
M. A. Jones	ESS-1				X
H. N. Kalia	ESS-1				X
D. J. Krier	ESS-1				X
S. S. Levy	ESS-1				X
G. Luedemann	ESS-1				X
D. A. Mann	ESS-1				X
L. W. Maassen	ESS-1				X
C. V. Montoya	ESS-1				X
W. A. Morris	ESS-1				X
R. D. Oliver	ESS-1				X
J. M. Ray	ESS-1				X
R. Raymond, Jr.	ESS-1				X
M. G. Snow	ESS-1				X
V. Starquist	ESS-1				X

\* Group leader signature needed  
 x Missing from file

B-1, 20F7  
1988 CERTIFICATION/TRAINING REPORT  
(continued)

Name	Group	Certification	Resume	Job Assignment	Position Description
K. Tanaka	ESS-1				X
E. Vaneckhout	ESS-1				X
D. T. Vaniman	ESS-1				X
R. G. Warren	ESS-1				X
S. Birdsell	ESS-4			X	
Z. Dash	ESS-4			X	
B. A. Robinson	ESS-4			X	
C. L. Straub	ESS-4	X	X	X	X
S. Barr	ESS-5		X*	X	X
K. H. Birdsell	ESS-5		X*	X	X
M. F. Butler	ESS-5		X*	X	X
K. L. Coen	ESS-5		X*	X	X
C. A. Dicke	ESS-5		X*	X	X
R. B. Demuth	ESS-5	X	X*	X	X
L. J. Dimas	ESS-5		X	X	X
K. G. Eggert	ESS-5			X	X
R. Jain	ESS-5		X*	X	X
G. Martinez	ESS-5				X
J. R. Neergaard	ESS-5			X	X
E. Nuttall	ESS-5	X	X	X	X
K. Partin	ESS-5		X*	X	X
B. J. Travis	ESS-5			X	X
B. J. Burton	HSE-5	X		X	X
B. L. Isom	HSE-5	X		X	X
S. E. Medina	HSE-5	X	X	X	X
J. M. Ortega	HSE-5	X		X	X
L. W. Ortiz	HSE-5	X		X	X

\* Group leader signature needed  
x Missing from file

B-1, 30F7

1988 CERTIFICATION/TRAINING REPORT  
(continued)

Name	Group	Certification	Resume	Job Assignment	Position Description
B. J. Skaggs	HSE-5	X		X	X
E. A. Vigil	HSE-5	X	X*	X	X
M. H. Ebinger	HSE-12			X	
E. H. Essington	HSE-12			X	
H. Fuentes	HSE-12			X	
S. M. Gonzales	HSE-12			X	
G. J. Langhorst	HSE-12			X	
G. Lopez	HSE-12			X	
B. D. Newman	HSE-12			X	
W. L. Polzer	HSE-12			X	
E. P. Springer	HSE-12			X	
B. L. Fearey	INC-7				X
S. Dye	INC-7				X
C. J. Duffy	INC-7				X
D. R. Janacky	INC-7				X
P. M. Killough	INC-7				X
A. Meijer	INC-7				X
L. M. Mitchell	INC-7				X
M. T. Murrell	INC-7				X
H. Nitsche	INC-7				X
A. E. Norris	INC-7				X
A. E. Ogard	INC-7			X	X
J. Poths	INC-7				X
M. Gopala Rao	INC-7			X	
P. Z. Rogers	INC-7				X
K. Wolfsberg	INC-7			X	X
W. H. Woodruff	INC-7				X

\* Group leader signature needed  
x Missing from file

B-1, 40F7

1988 CERTIFICATION/TRAINING REPORT  
(continued)

Name	Group	Certification	Resume	Job Assignment	Position Description
M. R. Cisneros	INC-11				X
D. E. Hobart	INC-11				X
S. D. Knight	INC-11				X
F. Lawrence	INC-11				X
A. J. Mitchell	INC-11				X
D. E. Morris	INC-11				X
M. A. Ott	INC-11				X
P. D. Palmer	INC-11				X
R. S. Rundberg	INC-11				X
K. W. Thomas	INC-11				X
J. L. Thompson	INC-11				X
I. R. Triay	INC-11				X
L. R. Clifton	LATA	X	X	X	X
K. L. Foster	LATA				
J. J. George	LATA			X	
G. Y. Hollen	LATA			X	
P. M. Hummer	LATA			X	
D. H. Kraig	LATA			X	X
R. A. Morley	LATA				X
M. F. McGowan	LATA				
A. M. Pendergrass	LATA				
D. F. Sterner	LATA			X	X
P. M. Tillery	LATA				
P. K. Trexler	LATA				X
M. L. Wheeler	LATA			X	
L. Chan	LBL		X*	X	X
R. C. Gatti	LBL		X*	X	X
K. Hsu	LBL	X	X	X	X
S. C. Lee	LBL	X	X	X	X

November 2 1988 8:37 AM  
01 L507100

\* Group leader signature needed  
\* Missing from file

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1988 CERTIFICATION/TRAINING REPORT  
(continued)

Name	Group	Certification	Resume	Job Assignment	Position Description
H. Nitsche	LBL	**	**	**	**
T. Prussin	LBL		X*	X	X
W. L. Searles	LBL	X	X	X	X
G. V. Shalimoff	LBL	X	X	X	X
E. M. Standifer	LBL		X*	X	X
D. B. Tucker	LBL	X	X	X	X
S. Bhatia	LS-2		X*	X	X
T. C. Black	LS-2	X	X*	X	X
L. E. Hersman	LS-2			X	X
Y. Kosaka	LS-2		X*	X	X
F. Marcinowski	LS-2		X*	X	X
J. A. Salazar	LS-2		X*	X	X
D. M. Updegraff	LS-2		X*	X	X
A. R. Jenkins					X
J. W. Chandler	MEC-8	X	X*	X	X
G. J. Gajiwski	MEC-8	X	X*	X	X
E. M. Gurule	MEC-8	X	X*	X	X
T. E. Moxley, Jr.	MEC-8	X	X*	X	X
G. E. Perrault	MEC-8	X		X	X
M. A. Salazar	MEC-8	X	X*	X	X
R. J. Serrano	MEC-8	X		X	X
J. T. Van Aken	MEC-8	X	X*	X	X
A. L. Gauler	MEC-8	X	X	X	X
G. D. Casedy	MEC-9	X	X*	X	X
F. N. Farnsworth	MEC-9	X		X	X

- \* Group leader signature needed
- \*\* See INC-7
- x Missing from file

B-1, 6 of 7

1988 CERTIFICATION/TRAINING REPORT  
(continued)

Name	Group	Certification	Resume	Job Assignment	Position Description
J. A. Canepa	N-5			X	X
P. R. Guthals	N-5	X	X	X	X
R. J. Herbst	N-5			X	X
M. O. Helland	N-5			X	X
L. L. Lopez	N-5				X
D. D. Norton	N-5			X	X
G. Ortiz	N-5			X	X
A. R. Pratt	N-5			X	X
E. L. Romero	N-5				X
D. T. Oakley	N-5	X	X	X	X
H. P. Nunes	N-5			X	X
R. Vigil	N-5			X	X
K. A. West	N-5				X
R. J. Beckman	A-1	X	X	X	X
K. Campbell	A-1	X	X	X	X
M. E. Johnson	A-1	X	X	X	X
L. M. Moore	A-1	X	X	X	X
R. J. Crowley	WX-4		X*		X
S. D. Francis	WX-4		X*		X
D. Hall	WX-4		X*		X
M. R. Martinez	WX-4		X*		X
T. J. Merson	WX-4		X*		X
D. A. York	WX-4		X*		X
G. A. Zyvoloski	T-3			X	X
B. E. Barnes	UTEP				
P. Chan	UTEP				

November 2, 1988 8:37 AM  
91 LS07100

\* Group leader signature needed  
x Missing from file

B-1, 70F7

1988 CERTIFICATION/TRAINING REPORT  
(concluded)

Name	Group	Certification	Resume	Job Assignment	Position Description
M. Wilkinson	UTEP				
C. Yong	UTEP				

November 2, 1988 9:33 AM  
81 L507100

- Group leader signature needed.

Car. 33  
**Los Alamos**

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

**ENCLOSURE B-2 of B-3**  
**B-2, 1 of 3**  
**memorandum**

**TO** H. P. Nunes, N-5, MS J521 **DATE** September 16, 1988  
**FROM** A. M. Pendergrass, QAS *AMP* **MAL STOP/TELEPHONE** M321/662-9080  
**SYMBOL** TWS-N5/09-88-051  
**SUBJECT** CLARIFICATION TO SUPPLIER EVALUATION CRITERIA REVIEW  
RESPONSE TO CAR NO. 035, REV. 1 OF THE NRC MINIAUDIT

As a part of the response to CAR No. 035, Rev. 1 of the NRC miniaudit, the documentation on service contracts was to be reviewed to ascertain whether evaluation criteria are stated in the procurement documents. I reviewed outstanding service contracts from INC 7/11, HSE-5, and HSE-12 groups and reported the results of that review to you in a memo, TWS-N5/08-88-82, dated September 1, 1988. Groups ESS-4, ESS-5, and A-1 have no outstanding service contracts, Group ESS-1 has service contracts with the University of California at Riverside and with UNM, both inactive at present. Group WX-4 has a service contract with EG&G in Las Vegas. No other service contracts are in effect at this time.

The QAL for ESS-1 and WX-4 will review the procurement contracts with UNM, EG&G, and UC-Riverside for evaluation criteria by October 30, 1988. An audit has been performed as part of the evaluation of supplier performance on the active contract with EG&G, June 14 and 15, 1988 (LANL-NNWSI-88-04).

Group INC 7/11 also has an active service contract with UNM, as stated in the memo TWS-N5/08-88-82. As stated in that memo, evaluation criteria appear in the procurement documents for that contract. No audits or surveys of work conducted under this contract have been performed to date.

If you have any questions on the review of service procurement documents, please call me at 662-1755 or 662-9080.

**Cy:** J. J. George, LATA, MS M321  
D. T. Oakley, N-5, MS J521  
NRC Audit file (CAR No. 035), MS M321  
QAS file, MS M321  
RPC (3), MS J521



B-2, 30F3

H. P. Nunes  
TWS-N5/08-88-82  
September 1, 1988  
Page 2

Performance has been evaluated through audits and surveys performed by LANL QA staff members and QAS personnel for the contracts with UTEP, LBL, and Hydro Geo Chem, Inc. Corrections to findings have been made in a satisfactory manner. LANL is evaluating the performance on contracts with Element Analysis Corporation and Data Chem, Inc., by inspecting their submitted data, including the data for unidentified blanks submitted as samples for analysis. Progress reports produced through the contract with UNM are reviewed by LANL. Audits or surveys of this work have not been conducted to date.

No adverse trends have been noted with regard to the evaluation criteria contained in service procurement documents. Appropriate evaluation criteria and deliverables that can be evaluated are specified in all procurement documents reviewed.

If you have any questions on this review of service procurement documents, please contact me at 662-1755 or 662-9080.

AMP/lpg

Cy: D. T. Oakley, N-5, MS J521  
J. J. George, LATA, MS M321  
NRC audit file, MS M321  
QAS file, MS M321  
RPC (3), MS J521

# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

ENCLOSURE B-3 of B-3

## memorandum

TO Distribution

FROM H. P. Nunes, QAPL *HPN*

SYMBOL TWS-N5-08-88-061

SUBJECT REVIEW OF DETAILED TECHNICAL PROCEDURES (DPs)

DATE: September 23, 1988

MAIL STOP/TELEPHONE: J521/7-8039

In response to Corrective Action Report (CAR) 040, which resulted from the NRC miniaudit, please be alerted to the fact that all principal investigators are required to review their groups' DPs for the inclusion of the requirements of TWS-QAS-QP-13.1, R0, "Handling, Storage, and Shipping Procedure." These reviews are to be completed by November 30, 1988. A memorandum, which shall indicate the completion of the reviews and shall identify any DPs that require revision, must be sent to Karen Foster, LATA, MS M321, by November 30, 1988.

If you have any questions, please contact Mike McGowan, LATA, 662-1731, or myself.

MFM/pmf

### Distributions:

K. Campbell, A-1, MS F600  
S. Dye, INC-7, MS J514  
K. G. Eggert, ESS-5, MS F665  
E. H. Essington, HSE-12, MS J495  
K. L. Foster, LATA, MS M321  
J. J. George, LATA, MS M321  
L. E. Hersman, LS-2, MS M890  
L. W. Maassen, ESS-1, MS D462  
M. F. McGowan, LATA, MS M321  
B. A. Robinson, ESS-4, MS J981  
B. J. Skaggs, HSE-5, MS K494  
P. M. Tillery, LATA, MS M321  
QAS file, MS M321  
RPC (3), MS J521

YUCCA MOUNTAIN PROJECT OFFICE  
QUALITY ASSURANCE SURVEILLANCE REPORT  
OF LOS ALAMOS NATIONAL LABORATORY

SURVEILLANCE NUMBER YMP-SR-89-002

CONDUCTED NOVEMBER 29, 1988

LOS ALAMOS ACTIVITIES SURVEILLED:

THIS SURVEILLANCE WAS CONDUCTED TO:

1. DETERMINE PROGRESS TOWARD PREPARATION OF RESPONSES TO INTEGRATED DATA SYSTEM (IDS) DEFICIENCIES NOTED IN SURVEILLANCES YMP-SR-88-021 AND YMP-SR-88-022.
2. DETERMINE STATUS OF OTHER LOS ALAMOS DEFICIENCIES REQUIRING ACTION.
3. VERIFY NRC MINI-AUDIT COMPLETED OPEN ITEMS AND THE STATUS RESOLUTION OF INCOMPLETE ITEMS.

PREPARED BY: T.W. Noland / John R. Doyle DATE: 2/1/89  
T. W. NOLAND / J. R. DOYLE

PREPARED BY: W. B. Mansel / C. E. Hampton DATE: 02/01/89  
W. B. MANSEL / C. E. HAMPTON

APPROVED BY: [Signature] DATE: 2/01/89  
DIVISION MANAGER, SURVEILLANCE

APPROVED BY: Wendell B. Mansel Jr DATE: 02/01/89  
PROJECT QUALITY MANAGER

## 1.0 INTRODUCTION

This report contains the results of the T&MSS Quality Assurance (QA) surveillance of Los Alamos National Laboratory (Los Alamos) to determine progress made in preparation of responses to Standard Deficiency Reports (SDRs) generated as a result of surveillances YMP-SR-88-021 and YMP-SR-88-022, and to determine the status of other SDRs requiring action. In addition, this T&MSS surveillance was performed to verify the results of Los Alamos implementation of corrective action necessary to close out the deficiencies identified during the U.S. Nuclear Regulatory Commission (NRC) Mini-Audit of June 8, 1987. The surveillance was performed at the Los Alamos offices in Los Alamos New Mexico, on November 29, 1988, in accordance with Quality Management Procedure (QMP)-18-02, Rev. 1, "Surveillance."

## 2.0 SURVEILLANCE PERSONNEL

This surveillance was performed by:

Terry Noland - QA Engineer, T&MSS, Las Vegas, NV  
John Doyle - QA Engineer, T&MSS, Las Vegas, NV  
Wendell Mansel - QAE, Project Office, Las Vegas, NV  
Catherine Hampton - QA Specialist, Project Office, Las Vegas, NV  
Bob Waters - General Engineer, Exploratory Shaft Branch, Project Office, Las Vegas, NV

## 3.0 SUMMARY OF SURVEILLANCE RESULTS

### 3.1 Summary of Progress of SDRs and Observations Identified by Surveillances YMP-SR-88-021 and YMP-SR-88-022

Responses had not been completed for SDRs 196 through 203 and Observations SR-88-021-01 through 05 and SR-88-22-01, issued during surveillances YMP-SR-88-021 and YMP-SR-88-022. Los Alamos informed the surveillance team that the responses would not be completed by the required response date. They did commit to issue a letter requesting an extension to these responses to the Project Office by December 5, 1988. Los Alamos also stated that QA-affecting procedures for the Integrated Data System (IDS) activities are completed and in the review process.

### 3.2 Status Summary of Open SDRs

#### SDR No. 008

Action required by the T&MSS Surveillance Division. This SDR is in the process of being closed out.

### 3.2 Status Summary of Open SDRs (cont'd)

#### SDR No. 011

Verified statement of Los Alamos corrective action that states: "No adverse impacts have been found in the quality program due to not having the procedure revised." Surveillance team checked several Los Alamos audit files, and the statement is supported in the Audit Response Letters (Item 4 of Enclosures A-1, 2, and 3). This SDR is in the process of being closed out.

#### SDR No. 098

Los Alamos will provide response and approved procedure necessary for completion of corrective action by 12/5/88.

#### SDR No. 131

Action required by the T&MSS Surveillance Division. The voiding of the SDR was in process as of 11/10/88.

#### SDR No. 184

Action required by T&MSS Overview Division. Overview Division needs to evaluate response received on 11/9/88.

### 3.3 Summary of Corrective Actions Concerning NRC Mini-Audit

This section gives the status of the implementation and verification of each Los Alamos Corrective Action Report (CAR) by "identifying those items verified as closed during this surveillance" and listing the remaining "open items." Each item is part of the corrective action Los Alamos identified to resolve each NRC deficiency or finding.

No CARs were verified as closed during this surveillance. The remaining CARs have open correction action items to be implemented and verified prior to closure. Thirteen of the original seventeen CARs generated as a result of the NRC-cited deficiencies remain open.

Both the NRC deficiencies and the Los Alamos corrective actions to resolve the deficiencies are stated in the Los Alamos CARs. Due to their length this information is not repeated here, but is provided in reports YMP-SR-88-018 and YMP-SR-88-014.

Los Alamos has reopened CAR No. 029. It and CARs 027, 030, 033, 034, and 040 will be revised to reflect true corrective action that is planned or was taken. These CARs were closed or partially verified by Los Alamos upon issuance of Change Requests (CRs) 043, 044, 046, 047, 048, and 051. These change requests were later voided by Los Alamos because they did not go through the proper review and approval cycle. This was documented in Los Alamos CAR No. 050 (See Enclosure A-4).

3.3 Summary of Corrective Actions Concerning NRC Mini-Audit (cont'd)

CAR No. 024, Rev. 1 - NRC Audit Report Finding, Page B-1

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified as closed during this surveillance.

Open Items

Preparation and issuance of a stop work order procedure in the Los Alamos Quality Assurance Manual. Procedure to be completed by December 16, 1988; training by January 13, 1989.

Note: Los Alamos missed their initial scheduled completion date of September 30, 1988.

CAR No. 025, Rev. 1 - NRC Audit Report Finding, Page B-3

Items Verified as Closed During this Surveillance

A sample verification of annual certifications of personnel was completed. Refer to Enclosure B-1.

Open Items

A Los Alamos survey will be conducted to ascertain the effectiveness of training to the revised QAPP, Rev. 2, using the recertification results of 1988. Necessary changes to the training guide and QP-02 identified as a result of the survey will be completed by January 13, 1989. Training Guide will be completed by December 16, 1988.

Note: Los Alamos missed their initial scheduled completion date of November 30, 1988.

CAR No. 026, Rev. 1 - NRC Audit Report Finding, Page B-4

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified during this surveillance.

Open Items

- a. QP-02.1, Rev. 1, will be revised to include requirements for the review of each Yucca Mountain Project employee and the procedures that affect them. Scheduled completion date - January 13, 1989.

### 3.3 Summary of Corrective Actions Concerning NRC Mini-Audit (cont'd)

- b. Additional training needs for all personnel will be evaluated and documented annually.
- c. Preparation of an administrative procedure to address the Project Office Training Management Plan directive. Procedure in preparation stage as of this surveillance. Scheduled completion date - January 13, 1989.
- d. Training of all responsible managers and principal investigators in Training Management Plan requirements and documentation. Scheduled completion date - January 13, 1989.
- e. Preparation of an index matching Project employees and the procedures that affect them. An index has been partially completed for all employees, with the exception of the Administrative Department. Scheduled completion date - December 20, 1988.

Note: Los Alamos has missed their scheduled completion dates of November 30, 1988, for items a, c, d, and e.

#### CAR No. 027, Rev. 1 - NRC Audit Deficiency, Page B-5

##### Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be closed during this surveillance.

Note: CAR No. 027 is being revised due to CAR No. 050 (see Enclosure A-4) on improper issuances of CR 044.

##### Open Items

Issue revised CAR. Scheduled completion date - December 9, 1988.

#### CAR No. 028, Rev. 1 - NRC Audit Report Deficiency, B-6

##### Items Verified as Closed During this Surveillance

No corrective action items were ready to be verified as closed during this surveillance.

##### Open Items

- a. Establish a list of procedures that need revision to include accept/reject criteria. File partially complete. Scheduled completion date - December 20, 1988.

3.3 Summary of Corrective Actions Concerning NRC Mini-Audit (cont'd)

- b. Complete training on DP-05.2. Scheduled completion date - January 6, 1989.

Note: Los Alamos missed their initial scheduled completion dates of September 9, 1988, for Item a and September 30, 1988, for Item b.

CAR No. 029, Rev. 1 - NRC Audit Report Deficiency, Page B-7

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified as closed during this surveillance.

Note: CAR is being reopened and revised due to CAR No. 050 (see Enclosure A-4) on improper issuance of CR 043.

Open Items

Issue revised CAR. Scheduled completion date - December 9, 1988.

CAR No. 030, Rev. 1 - NRC Audit Report Deficiency, Page B-8

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified as closed during this surveillance.

Note: CAR No. 030 is being revised due to CAR No. 050 (see Enclosure A-4) on improper issuances of CR No. 051.

Open Items

- a. Issue revised CAR. Scheduled completion date - December 9, 1988.  
b. Completion of technical reviews on all DPs. Scheduled completion date - February 28, 1989.

CAR No. 031, Rev. 1 - NRC Audit Report Deficiency, Page B-9

Items Verified as Closed During this Surveillance

No corrective action items were ready to be verified as closed during this surveillance.

### 3.3 Summary of Corrective Actions Concerning NRC Mini-Audit (cont'd)

#### Open Items

Complete training of purchasing procedures (QP-04.1, QP-04.2, and QP-04.3). Scheduled completion date - January 13, 1989.

Note: Los Alamos missed their initial scheduled completion date of September 15, 1988.

#### CAR No. 032, Rev. 1 - NRC Audit Report Deficiency, Page B-10

#### Items Verified as Closed During this Surveillance

No corrective action items were ready to be verified as closed during this surveillance.

#### Open Items

Complete training on purchasing procedures (QP-04.1, QP-04.2, and QP-04.3). Scheduled completion date - January 13, 1989.

Note: Los Alamos missed their initial scheduled completion date of September 15, 1988.

#### CAR No. 033, Rev. 1 - NRC Audit Report Deficiency, Page B-11

#### Items Verified as Closed During this Surveillance

No corrective action items were ready to be verified as closed during this surveillance.

Note: CAR No. 033 is being revised due to CAR No. 050 (see Enclosure A-4) on improper issuances of CR 047.

#### Open Items

Issue revised CAR. Scheduled completion date - December 9, 1988.

#### CAR No 034, Rev. 1 - NRC Audit Report Deficiency, Page B-12

#### Items Verified as Closed During this Surveillance

No corrective action items were ready to be verified as closed during this surveillance.

Note: CAR No. 034 is being revised due to CAR No. 050 (see Enclosure A-4) on improper issuances of CR 046.

### 3.3 Summary of Corrective Actions Concerning NRC Mini-Audit (cont'd)

#### Open Items

- a. Issue revised CAR. Scheduled completion date - December 9, 1988.
- b. Complete training to procedure QP 4.1. Scheduled completion date - January 13, 1989.

#### CAR No. 035, Rev. 1 - NRC Audit Report Deficiency, Page B-13

#### Items Verified as Closed During this Surveillance.

Los Alamos has issued a memorandum to NRC audit file covering the review of procurement documents. Refer to Enclosure B-2

#### Open Items

Complete training on QP-04.2. Scheduled completion date - January 13, 1989.

Note: Los Alamos missed their initial scheduled completion date of September 30, 1989.

#### CAR No. 040, Rev. 1 - NRC Audit Report Deficiency, Page B-18

#### Items Verified as Closed During this Surveillance

Los Alamos has issued a training memo to the principal investigators to alert them to the necessity for an immediate review of the DPs for compliance. Refer to Enclosure B-3.

Note: CAR No. 040 is being revised due to CAR No. 050 (see Enclosure A-4) on improper issuances of CR 048.

#### Open Items

- a. Issue revised CAR. Scheduled completion date - December 9, 1988.
- b. Complete the review of the DPs. Scheduled completion date - February 28, 1989.

### 3.4 Other Business

The surveillance team met with Henry Nunes and Donald Oakley for feedback concerning the "Quality Assurance Deficiency Tracking Application Report of Open Documents and Keywords." Los Alamos suggested that the Project Office Action Number be included for each SDR in this report. A second suggestion was to have the last name of the initiator or current responsible follower of the SDR added to this report so the responsible parties can communicate directly.

### 3.4 Other Business (cont'd)

In SDR processing, the importance of sending all responses to Nita J. Brogan of T&MSS was stressed. Los Alamos was informed that in the future, the original SDR should be stamped with red ink. Los Alamos stated that the originals should go to Henry Nunes. Donald Oakley emphasized that the accuracy of an issued SDR should be ensured.

The surveillance team attempted to obtain microfilmable copies of attachments for Surveillance Report YMP-SR-88-018. Los Alamos, after unsuccessfully submitting suitable copies from their local files, agreed to provide this microfilmable material by December 15, 1988.

### 4.0 PERSONNEL CONTACTED

H. P. Nunes - Los Alamos/Quality Assurance Project Leader  
D. T. Oakley - Los Alamos/Technical Project Officer  
K. Foster - Los Alamos Technical Associates/Administrative Assistant.

### 5.0 SYNOPSIS OF STANDARD DEFICIENCY REPORTS/OBSERVATIONS

There were no SDRs or Observations written as a result of this surveillance.

### 6.0 REQUIRED ACTIONS

Additional surveillances will be performed to verify closeout of the remaining NRC deficiencies.

# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

## memorandum

TO Wayne A. Morris, ESS-1, MS D462 DATE MAR 4 1988

FROM Paul Guthals, QAPI *W* MAIL STOP/TELEPHONE J521/7-8039

SYMBOL TWS-N5/02-88-71

SUBJECT ESS-1 ANNUAL AUDIT REPORT  
AUDIT NO: LANL-NNWSI-88-03  
AUDIT DATES: FEBRUARY 10 AND 11, 1988

Attached, herein, is the audit report (Audit No. LANL-NNWSI-88-03) for the audit recently conducted at ESS-1 for LANL NNWSI Project work. These results were discussed at the postaudit meeting held on February 11, 1988.

The cooperation, responsiveness, and courtesies extended by ESS-1 personnel during the conduct of the audit and meetings were greatly appreciated.

There were four observations and three findings made during this audit. As a result of the findings, there are responses due to the lead auditor. Responses to these findings are due within 30 working days from the date stamped on this report. The official observation and finding reports are included in this audit report.

The response to the finding must address the following:

- (1) steps taken to address the specific deficiency,
- (2) the date when the steps will be completed,
- (3) the root cause of the deficiency,
- (4) the steps taken to prevent a recurrence, and
- (5) the data when this will process be accomplished.

If you have any questions, please feel free to contact me or Patricia Tillery at (505) 662-1752.

PG:rmj

Attachments: a/s

Cy: L. Maassen, ESS-1, w/att., MS D462  
 D. Oakley, N-5, MS J521  
 H. Nunes, LATA, MS M321  
 M. McGowan, LATA, MS M321  
 P. Tillery, LATA, MS M321  
 D. Kraig, LATA, MS M321  
 RPC (3), w/att., MS J521  
 QAS File, w/att.

*Handwritten notes:*  
 See my response  
 reported  
 [Signature]

