

YUCCA MOUNTAIN PROJECT OFFICE
QUALITY ASSURANCE SURVEILLANCE REPORT
OF LOS ALAMOS NATIONAL LABORATORY
SURVEILLANCE NUMBER YMP-SR-89-005
CONDUCTED JANUARY 25, 1989

LOS ALAMOS ACTIVITIES SURVEILLED:

THIS SURVEILLANCE WAS CONDUCTED TO:

VERIFY NRC MINI-AUDIT COMPLETED OPEN ITEMS AND TO STATUS THE RESOLUTION
OF INCOMPLETE ITEMS.

PREPARED BY: *D. Heaney* *J. R. Doyle* DATE: 2-21-89
G. HEANEY J. R. DOYLE

PREPARED BY: *C. E. Hampton* *W. B. Mansel* DATE: 2-22-89
C. E. HAMPTON W. B. MANSEL

APPROVED BY: *[Signature]* DATE: 2/22/89
SURVEILLANCE DIVISION MANAGER

APPROVED BY: *Wendell B. Mansel for* DATE: 03/03/89
PROJECT QUALITY MANAGER

1.0 INTRODUCTION

This Yucca Mountain Project Office (Project Office) surveillance was performed to verify the results of Los Alamos implementation of corrective actions 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 January 25, 1989, in accordance with Quality Management Procedure (QMP)-18-02, "Surveillances," Rev. 1.

2.0 SURVEILLANCE PERSONNEL

This surveillance was performed by:

Gerard Heaney - QA Engineer, T&MSS, Las Vegas, NV

John Doyle - QA Engineer, T&MSS, Las Vegas, NV

Wendell Mansel - QA Engineer, Project Office, Las Vegas, NV

Catherine Hampton - QA Specialist, Project Office, Las Vegas, NV

3.0 SUMMARY OF SURVEILLANCE RESULTS

This report provides 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.

Los Alamos CAR No. 025, Rev. 1, was verified as closed during this surveillance. Twelve of the original 17 CARs generated as a result of the NRC-cited deficiencies remain open. The remaining 12 open CARs have incomplete corrective action items to be implemented and verified prior to closure. Refer to Section 4.0, "Status of Corrective Actions," for specifics.

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

4.0 STATUS OF CORRECTIVE ACTIONS

Los Alamos has closed CAR No. 025, Rev. 1. Enclosure A to this report contains the documentation that supports closure of the CAR. Los Alamos CARs No. 024, 026, 027, 028, 029, 030, 031, 032, 033, 034, and 040 have been revised to reflect updated corrective action completion dates. The anticipated completion date for these CARs has been established as February 28, 1989. Enclosure B to this report contains a copy of the revised CARs. A summary of the remaining corrective actions for each CAR is contained below.

4.0 STATUS OF CORRECTIVE ACTIONS (cont'd)

4.1 Summary of Corrective Actions Concerning NRC Mini-Audit

CAR No. 024, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

A stop work order procedure has been drafted. The procedure will be issued and training will be completed by February 28, 1989.

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

Items Verified as Closed During this Surveillance

Refer to closed Los Alamos CAR No. 025, Rev. 1, and supporting documentation contained in Enclosure A to this surveillance report.

Open Items

None. Los Alamos has completed all corrective actions. The CAR is closed.

CAR No. 026, Rev. 2 - NRC Audit Report Finding, Page B-4

Items Verified as Closed During this Surveillance

- a. Los Alamos procedure QP-02.1, "Procedure for Personnel Selection, Indoctrination, and Qualification," Rev. 1, was issued with an effective date of December 20, 1988. The procedure includes requirements for the review of each Yucca Mountain Project employee for the purpose of establishing those quality and technical procedures applicable to that person's responsibilities (refer to Procedure Action Item No. 14).
- b. QP-02.1 includes requirements to evaluate training needs on an annual basis (refer to Procedure Action Item No. 22).

A copy of QP-02.1 is contained in Enclosure C to this surveillance report.

Note: The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

4.0 STATUS OF CORRECTIVE ACTIONS (cont'd)

4.1 Summary of Corrective Actions Concerning NRC Mini-Audit

Open Items

- a. Los Alamos procedure QP-02.2, "Procedure for Personnel Training," is to be issued. This procedure, along with QP-02.1, will address all the requirements contained in the "Nevada Nuclear Waste Storage Investigations Project Training Management Plan," dated May 10, 1988. QP-02.2 was in the preparation stage as of this surveillance. The scheduled completion date for issuance of the procedure and completion of training is February 28, 1989.
- b. The training of appropriate personnel to QP-02.1 and QP-02.2 requirements is scheduled to be completed February 28, 1989.
- c. The preparation of an index matching Project employees and the procedures that affect them has been started. Scheduled completion date is February 28, 1989.

CAR No. 027, Rev. 3 - 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. The CAR has been revised (Rev. 3) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Los Alamos is to complete training to QP-04.1 and QP-04.3 by February 28, 1989.

CAR No. 028, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

- a. Establish a list of procedures that need revision to include accept/reject criteria. File partially complete. Scheduled completion date is February 28, 1989.

4.0 STATUS OF CORRECTIVE ACTIONS (cont'd)

4.1 Summary of Corrective Actions Concerning NRC Mini-Audit

- b. Complete training on DP-05.2. Scheduled completion date is February 28, 1989.

CAR No. 029, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Los Alamos is to complete committed corrective actions and training by February 28, 1989.

CAR No. 030, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Completion of technical reviews on all DPs and training to procedure QP-05.2. Scheduled completion date is February 28, 1989.

CAR No. 031, Rev. 2 - NRC Audit Report Deficiency, Page B-9

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified as closed during this surveillance. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Complete training on purchasing procedures (QP-04.1, QP-04.2, and QP-04.3). Scheduled completion date is February 28, 1989.

4.0 STATUS OF CORRECTIVE ACTIONS (cont'd)

4.1 Summary of Corrective Actions Concerning NRC Mini-Audit

CAR No. 032, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Complete training on purchasing procedures (QP-04.1, QP-04.2, and QP-04.3). Scheduled completion date is February 28, 1989.

CAR No. 033, Rev. 2 - 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. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Complete training on purchasing procedure QP-04.3. Scheduled completion date is February 28, 1989.

CAR No. 034, Rev. 3 - 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. The CAR has been revised (Rev. 3) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Complete training to QP-4.1. Scheduled completion date is February 28, 1989.

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

Items Verified as Closed During this Surveillance

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

4.0 STATUS OF CORRECTIVE ACTIONS (cont'd)

4.1 Summary of Corrective Actions Concerning NRC Mini-Audit

Open Items

Completed training on Rev. 1 to QP-04.2. However, since they revised the procedure again, they need to complete training on QP-04.2, Rev. 2. Therefore, the scheduled completion date has been re-established for February 28, 1989.

CAR No. 040, Rev. 2 - NRC Audit Report Deficiency, Page B-18

Items Verified as Closed During this Surveillance

No corrective action items of this CAR were ready to be verified as closed during this surveillance. The CAR has been revised (Rev. 2) to indicate a new corrective action completion date of February 28, 1989.

Open Items

Complete the review of the DPs. Scheduled completion date is February 28, 1989.

5.0 PERSONNEL CONTACTED

H. P. Nunes - Los Alamos/Quality Assurance Project Leader
J. George - Los Alamos Technical Associates QA Manager
M. Wheeler - Los Alamos Technical Associates

6.0 SYNOPSIS OF STANDARD DEFICIENCY REPORTS/OBSERVATIONS

There were no SDRs or observations generated as a result of this surveillance.

7.0 REQUIRED ACTIONS

Los Alamos is to complete the committed corrective actions to the 12 remaining CARs by February 28, 1989. The Project Office is to perform a final surveillance at the end of February 1989 to verify closeout of the remaining NRC deficiencies.

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

WBS 1.2.9.3.A

QA

ENCLOSURE A TO
YMP-SR - 89-005

memorandum

TO: H. P. Nunes, N-5
DATE: December 8, 1988

FROM: J. J. George, LATA QAS *Handwritten signature: J. J. George*
MAIL STOP/TELEPHONE: MS M321/662-1844

SYMBOL: TWS-N5-12-88-013

SUBJECT: CLOSEOUT OF CAR 025, Rev. 1

The subject CAR (attached) addresses the need for revisions to procedures that specify certification requirements for LANL staff working on the Yucca Mountain Project. The actions specified by the CAR to correct the identified deficiency have been completed as documented below.

As noted in the CAR, revisions to the QAPP and to QP-02.1 were accomplished to incorporate necessary procedural changes. Training to the revised QAPP was conducted between April 1988 and June 1988, with nearly 100 percent attendance by LANL staff working on the project.

We have recently completed an evaluation of the completeness of the required documentation present in the QAS and resident files (Survey Report 0058). We find that a substantial portion of the information for position descriptions and job assignments is not present. We believe that changes in the certification procedure (QP-02.1) will facilitate the documentation process by identifying the parties responsible for preparing each position description, by identifying the minimum training requirements for each position category, by identifying the positions that have responsibility for collecting and submitting the required documentation to the resident file and to the QAS, and by specifying the time requirements for submission. These changes have been included in the revision to QP-02.1, now in the review process, and in QP-02.2, now in draft form. The new QP-02.2 discusses training as a separate procedure. This QP will further clarify requirements for training documentation.

A previous revision to QP-02.1, R0 (CR 050) was issued for review on 9/29/88. This change request clarifies the information required in position descriptions. This clarification will be carried forward in the revised QP-02.1.

After revisions to the procedure have been issued, any necessary changes will be made to the training guide.

The CAR stipulates that QAPP training be conducted and evaluated, and that necessary procedural changes be identified and documented. This memo documents that those actions have been completed.

JJG/kkk

Enclosures: CAR 025 , Rev. 1
SR 0058

Distribution:
M. L. Wheeler, LATA, MS M321
D. H. Kraig, LATA, MS M321

ENCLOSURE A TO
YMP-SR-89-005

Los Alamos NNWSI Project CORRECTIVE ACTION REPORT

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039	CAR No: 025, Rev. 1 Initiation Date: 26 August 1988 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-3	
Condition Requiring Corrective Action: See attached, Page 1 of 2.	
Corresponding Documentation: NRC Mini-Audit Report	
Assigned To: J. J. George <i>[Signature]</i>	Date: 26 August 1988
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.	
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Date: 11/21/88
Corrective Action Completed: James George / <i>[Signature]</i>	Date: 12/20/88
Implementation Verified By: James George / <i>[Signature]</i>	Date: 12/20/88
CAR Closeout: James George / <i>[Signature]</i>	Date: 12/20/88

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August 22, 1988 6:50 PM
13 FR/CAR LS06503 IGO

ENCLOSURE A TO

RESPONSE TO CAR NO. 025, Rev. 1

YMP-SR-89-005

REQUIREMENT**LANL-NNWSI-QAPP - Section 1.0 Organization, Subsection 1.1 LANL NNWSI Project:**

"Personnel performing QA Level I and II activities shall be certified to show competence to perform their specific duties, e.g., design verification, document review, surveillance, etc. ...The documentation of certification shall identify the basis for certification. ...Certification shall be evaluated on an annual basis."

DESCRIPTION OF FINDING

The audit team examined the quality assurance (QA) files containing records of personnel certification associated with Scientific Investigation Plan (SIP) No. 86/4.2. The Los Alamos form used to record the various certification appears to be used to certify an individual to selected Quality and Detailed Procedures rather than certifying, for instance, the Quality Assurance Liaison (QAL) as having competence to perform specific duties or responsibilities as identified in Table 1.1. The audit team felt the certifications examined contain minimal information on the qualifications of the LANL staff supporting the SIP No. 86/4.2 and thus may not be adequate for licensing. Similarly, it was noted by the audit team that there were no specific qualifications identified for personnel performing the quality related function of Quality Assurance Implementation Manager (QAIM), Quality Assurance Support and the QAL.

LANL CORRECTIVE ACTION TAKEN**1. Specific Deficiency Corrective Action**

The LANL QAPP has been extensively revised and reissued as Revision 2. This revision was reviewed and approved by WMPO on April 4, 1988. Section 2.0, "Quality Assurance Program," has been revised to include personnel certification, evaluations, and orientation. Subsections 2.4.1 through 2.4.4 establish the overall LANL program requirements and the required documentation. Further, the administrative procedure, QP-02.1, has been issued, and the annual certification process of Project personnel has been completed. The results of this certification process are on file at the file center of the Quality Assurance Support.

2. Root Cause Determination

Inadequate requirements and procedural direction were established in an effort to accomplish and document the appropriate evaluation and certification of NNWSI personnel.

3. Steps to Prevent Recurrence

Additional training to the revised QAPP, R2, has been given to all NNWSI participants. A survey will be conducted to ascertain the effectiveness of the above training using the recertification results of 1988. Necessary changes to the training guide and QP-02.1 will be documented as a part of the survey.

ENCLOSURE A TO

YMP- SR- 89-005

4. Schedule for Completion

The survey and additional modifications to the QAPP, R2, training guide, noted in no. 3 above, was completed on August 26, 1988.

ENCLOSURE A TO
YMP-SR-89-005
WBS 1.2.9.3.A
QA

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO: E. M. Cole, LATA
FROM: H. P. Nunes, QAP *HPN*
SYMBOL: TWS-N5-12-88-049
SUBJECT: SURVEY REPORT (SR) 0058 CLOSING OUT CAR 025

DATE: December 19, 1988
MAIL STOP/TELEPHONE: J521/7-8039

Enclosed is the report of Survey No. SR 0058, conducted in response to Corrective Action Report (CAR) 025. This survey was conducted over material contained in the QAS training files.

HPN/ejs

Enclosures: a/s

Distribution:

J. J. George, LATA, MS M321
K. A. Foster, LATA, MS M321
A. A. Kirby, LATA, MS M321

Cy: R. J. Herbst, N-5, MS J521
D. T. Oakley, N-5, MS J521
K. A. West, N-5, MS J521
QAS file, MS M321
QAS file, (CAR 025) MS M321
TWS-N-5 file, MS M321
RPC (2), MS J521

LOS ALAMOS NATIONAL LABORATORY
YUCCA MOUNTAIN PROJECT
QA SURVEY REPORT

ENCLOSURE A TO
YMP-SR-89-005

ORGANIZATION LANL QAS DATE 12-6-88
LOCATION Los Alamos Technical Associates SR No. 0058
PERSONNEL CONTACTED K. Foster (QAS Records Manager), A. Kirby (QAS Data Input Specialist)
QA LEVEL OF WORK I
COVERED BY SURVEY

DESCRIPTION OF ITEMS AND OPERATIONS REVIEWED AND OBSERVED. INCLUDE PROCEDURE NUMBER, ITEM NUMBER, AND IDENTIFICATION:

QAS Training Records, NNWSI LANL QAPP, R2. QAPP Subsection 1.1

The subject computerized training records were surveyed by Ann Pendergrass as part of the response to CAR 025, R1. This survey showed the following information:

- training sessions were held on eight occasions by the QAS, and
- a total of 126 Project participants attended the training.

The survey demonstrated that training attendance sheets are vital to collecting records of attendees.

Individuals (and their group affiliation) who did not attend the training session were

R. B. Demuth, ESS-5;
D. E. Hobart, INC-11;
K. W. Thomas, INC-7; and
W. H. Woodruff, INC-4 (working with INC-11).

S. E. Medina, HSE-5, and C. L. Straub, ESS-4, are record clerks (Resident File Custodians). They have not received training to QAPP, R2, but have received other QA training appropriate to their job assignments.

A memo was issued to the QAPL, identifying all of the above-named individuals who had not attended training sessions on the QAPP, R2 (TWS-N5/08-88-80).

James George / James George
QAS SIGNATURE

12/9/88
DATE

Ann Pendergrass
QAL SIGNATURE

December 6, 1988
DATE

Henry Paul Hines
QAPL CONCURRENCE

12/12/88
DATE

LATA

**Los Alamos National Laboratory
Los Alamos, New Mexico 87545**

YMP-SR-89-005

TO: H. P. Nunes, N-5, MS J521 DATE: September 1, 1988

FROM: A. M. Pendergrass, QAS /MLP MAIL STOP/TELEPHONE: M321/662-9080

SYMBOL: TWS-N5/08-88-80

SUBJECT: QAPP, R2, TRAINING OF LANL YUCCA MOUNTAIN PROJECT PERSONNEL

The training records for QAPP, R2, were recently reviewed as a part of the response to the NRC miniaudit CAB No. 025, R1. Some individuals working on the LANL Yucca Mountain Project are not shown on the QAS training records as having attended any of the eight training sessions. These individuals and their group affiliations include the following:

R. B. Demuth, ESS-5
D. E. Hobart, INC-11
K. W. Thomas, INC-7
W. H. Woodruff, INC-4 (working with INC-11)

The following individuals are records clerks or resident file custodians. They have not received QAPP, R2, training but have received other QA training appropriate to their job assignments.

C. L. Straub, ESS-4

~~L. Mitchell, INC-7/11~~ 5/16/48

Because the QAPP, R4, is now being prepared, the QAS contractor proposes that general QAPP training be offered to these individuals as soon as feasible. This training should take place early in September to allow for enough time to place the training records in the files before the DOE/YMPO audit of LANL scheduled to start October 3, 1988.

Please indicate your direction on this matter to Jim George or me at 662-9080.

AMP/kkk

**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**

born to the following
in the same bed -
attended by - Rot. TWS no.

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Los Alamos

memorandum

**Cy: S. Dye, INC-7, MS J514
K. G. Eggert, ESS-5, MS F665
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 A TO

YMP- SR- 89-005

memorandum

TO NNWSI Project Personnel

FROM D. T. Oakley 

SYMBOL: TWS-N5/04-88-23

SUBJECT QAPP TRAINING SESSIONS

DATE: April 13, 1988

MAIL STOP/TELEPHONE: J521/7-9768

The Quality Assurance Program Plan (QAPP), R2, which was revised to the Waste Management Project Office's (WMPO) latest specifications, has now been approved by WMPO. The Quality Assurance Support (QAS) group will be offering training on the revised QAPP. All LANL NNWSI Project personnel must receive this updated training.

Training will be offered at the following times:

Wednesday, April 20, 1988, from 1:00 p.m. to 4:00 p.m.

Thursday, April 28, 1988, from 9:00 a.m. to 12:00 p.m.

Tuesday, May 10, 1988, from 1:00 p.m. to 4:00 p.m.

The sessions will be held in the INC-DO conference room (TA-48 RC#29). Because this is required training, please plan to attend one of the above three sessions.

Please contact Karen West at 667-1033 or Henry Nunes at 662-1753 if you have any questions regarding these sessions.

DTO/meg

Distribution:
NNWSI Project Directory List (Attached)
K. A. West, MS J521
H. P. Nunes, MS M321
RPC (3), MS J521
QAS File, MS M321

Los Alamos


Los Alamos National Laboratory
Los Alamos, New Mexico 87545

ENCLOSURE A TO

YMP-SR-89-005

memorandum

TO: Distribution

FROM: H. P. Nunes, QAPL 

SYMBOL: TWS-N5/06-88-04

SUBJECT: QAPP MAKE-UP TRAINING SESSION

DATE: June 9, 1988

MAIL STOP/TELEPHONE: J521/7-8039

A make-up training session on the Quality Assurance Program Plan, Revision 2, will be held on Monday, June 20, 1988, at 8:30 am, in the INC-DO conference room. The INC-DO conference room is in RC-29, the transportable building next to of the N-5 offices.

As stated in a memo from D. T. Oakley, TWS-N5/04-88-23, all LANL NNWSI Project personnel must receive this updated training. This is the last scheduled make-up session.

Please contact me if you have any questions regarding this training.

HPN/kkk

Distribution:

- P. L. Aamodt, ESS-1, MS D462
- W. S. Baldrige, ESS-1, MS D462
- D. Beckman, A-1, MS F600
- E. A. Bryant, INC-7, MS J514
- W. R. Daniels, INC-11, MS J514
- R. B. Demuth, ESS-5, MS F665
- L. J. Dimas, ESS-5, MS F665
- B. R. Erdal, INC-DO, MS J519
- D. E. Hobart, INC-11, MS G739
- B. L. Isom, HSE-5, MS K486
- M. Johnson, A-1, MS F600
- S. Maestas, INC-11, MS J514
- T. E. Hakonson, HSE-12, MS J495
- R. J. Herbst, N-5, MS J521
- C. W. Myers, ESS-DO, MS D446

ENCLOSURE A TO
YMP- SR - 89 - 005

Distribution (continued)
TWS-N5/06-88-04
June 9, 1988
Page 2

- ✓ C. A. Navarro, WX-4, MS G787
- J. M. Ray, ESS-1, MS D462
- K. W. Thomas, INC-11, MS J514
- ✓ R. Vigil, N-5, MS J521
- ✓ R. P. Vigil, MEC-8, MS D474

- Cy: S. Dye, INC-7, MS J514
- K. G. Eggert, ESS-5, MS F665
- A. L. Gauler, MEC-8, MS D474
- W. A. Morris, ESS-1, MS D462
- D. T. Oakley, N-5, MS J521
- B. J. Skaggs, HSE-5, MS K494
- ~~████████████████████~~
- RPC (3), MS J521

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YMP-SR-89-005

NNWSI PROJECT TRAINING FORM

TITLE: QAPP TRAINING

DURATION: 1-4 PM

DATE: 5/10/88

INSTRUCTOR: H.P. NUNES / M.F. MCGOWAN

ORG: LATA-QAS

PHONE: 662-1753

ATTENDEES

[illegible]

(2 FROM LOSANOS BIRM)

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ENCLOSURE A TO
YMP- SR- 89-005

NNWSI PROJECT TRAINING FORM			
TITLE: <u>QAPP TRAINING</u>			
DURATION: <u>1 - 4 PM</u>		DATE: <u>5/10/88</u>	
INSTRUCTOR: <u>H.P. NUNES / M.F. MCGOWAN</u>		ORG: <u>LATA-QAS</u> PHONE: <u>662-1753</u>	
ATTENDEES			
PRINT NAME	SIGNATURE	GROUP	PHONE
Zora V. Dash	Zora V. Dash	ESS-4	7-1923
M. Rose Mathre	M. Rose Mathre	IX-4	7-7378
Alan Mitchell	Alan Mitchell	INC-11	7-4025
Lia M. Mitchell	Lia M. Mitchell	INC-7	7-4498
Eric Nuttall	Eric Nuttall	ESS-5	7-1591
Gary Langhast	Gary Langhast	HSE-12	7-3300
Everett Springer	Everett Springer	HSE-12	7-4836
Suzann Dye	Suzann Dye	IMP-7	7-5487
PATRICIA TWERY	Patricia M. Twery	LATA	662-1752
BRYAN FARREY	Bryan Farrey	INC-7	5-2423
Pam Rogers	Pam Rogers	IX-7	7-1765
Rob Nordberg	Rob Nordberg	INC-11	7-4559
DON OAKLEY	DON OAKLEY	N-5	71310
ALLEN GAULER	Allen J. Gauler	MEC-8	7-4864
Inez Truay	Inez Truay	INC-11	5-1755
Geri A. Martinez	Geri A. Martinez	ESS-5	7-6374
Phillip D. Palmer	Phillip D. Palmer	INC-11	7-9213
Sylene J. Partin	Sylene J. Partin	ESS-5	7-1581
BRYAN TRAVIS	Bryan Travis	ESS-5	7-1254
ENNETH EGGERT	Enneth Eggert	ESS-5	7-5200
AUD PESTEGRASS	Aud Pestegras	LATA	2-1755

ENCLOSURE A TO
YMP-SR-89-005

NNWSI PROJECT TRAINING FORM

TITLE: QAPP, R2
DURATION: 9AM DATE: 4/28
INSTRUCTOR: McGowan/Nunes ORG: LATA/QAS PHONE: 662-1753

ATTENDEES

PRINT NAME	SIGNATURE	GROUP	PHONE
Don Pendergrass	Don Pendergrass	LATA QAS	662-1755
Gabriela M. Lopez	Gabriela M. Lopez	ASE12	667-2426
A.E. NORRIS	A.E. Norris	INC-7	667-5442
Stephen A. Birelsell	Stephen A. Birelsell	ESS-4	7-4318
Bruce A. Robinson	Bruce A. Robinson	ESS-4	7-4318
Karen C. Foster	Karen C. Foster	LATA	2-1763
David L. Bish	David L. Bish	ESS-1	7-1165
PATRICIA M. TILLEY	Patricia M. Tilley	LATA	662-1752
WILLIAM R. JENKINS	William R. Jenkins	INC-3	5-6372
JIM ALDRICH	Jim Aldrich	ESS-1	7-1495
Pat Hummer	Pat Hummer	LATA	662-1814
Martin Wheeler	Martin Wheeler	LATA	662-1816
DAVID KRAIG	David Kraig	LATA	662-1820
Katherine Campbell	Katherine Campbell	A-1	667-2799
VIRGINIA STANLEY	Virginia Stanley	ESS-1	7-6879
Barbara Carlos	Barbara Carlos	ESS-1	667-6879
KAYNE MORRIS	Kayne Morris	ESS-1	667-1590
Frank Byers	Frank Byers	ESS-1	667-8753
John Thompson	John L. Thompson	INC-11	667-4539

ENCLOSURE A TO
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NAME	SIGNATURE	GROUP	PHONE
G. Luedemann	<i>Guy Luedemann</i>	ESS-1	7-7674
K. Tanaka	<i>Kyrie Tanaka</i>	ESS-1	7-1110
R.C. Hagan	<i>R.C. Hagan</i>	ESS-1	7-4255

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ENCLOSURE A TO
YMP- SR-89-005

NNWSI PROJECT TRAINING FORM			
TITLE: <u>GAPP R2 TRAINING</u>			
DURATION: <u>9AM -</u>		DATE: <u>4-28-88</u>	
INSTRUCTOR: <u>McGowan / Nunes</u>		ORG: <u>LANL/NNWSI</u> <u>GAS</u>	PHONE: <u>662-1753</u>
ATTENDEES			
PRINT NAME	SIGNATURE	GROUP	PHONE
Karen West	Karen West	N-5	7-1033
Charles HARRINGTON	Charles Harrington	ESS-1	7-0078
ROBERT RAYMOND, JR	Robert Raymond, Jr.	ESS-1	7-4580
MARJORIE H. SNOW	MH Snow	ESS-1	7-8005
RICHARD MORLEY	Rich Morley	LATA	2-1812
Gabriel Ortiz	Gabriel Ortiz	N-5	7-0599
Eva Romero	Eva L. Romero	N-5	7-9768
MICHAEL CISNETROS	Michael Cisnetros	N-5	7-3164
MARTIN A. OTT	Martin A. Ott	INC-11	7-4085
Clarence J. Duffy	Clarence J. Duffy	TNC-7	7-5154
King Corn	King Corn	ESS-5	7-1374
Summer Barr	Summer Barr	ESS-5	7-5648
Sylvia D. Knight	Sylvia D. Knight	INC-11	7-4572
FRANKIE LAWRENCE	Frankie Lawrence	INC-11	7-4578
Jane Poths	Jane Poths	INC-7	7-1506
Diane Morton	Diane Morton	IS-11	7-0916
DAVID BROXTON	David Broxton	ESS-1	7-2482
Jan Barber	Jan Barber	ESS-1	7-7590
PHYLLIS AUGHAMPAUGH	Phyllis Aughampaugh	ESS-1	7-5590
Michael Ebinger	Michael Ebinger	HSE-12	7-3147
Brent Newman	Brent Newman	HSE-12	7-2426
Sylvia Gonzalez	Sylvia Gonzalez	HSE-12	7-3331
Wilfred L. Patzer	Wilfred L. Patzer	HSE-12	7-3073
Alison Kichy	Alison Kichy	LATA	662-1803
Steve J. Chipora	Steve J. Chipora	ESS-1	7-1110

(OVER)

12 FORM LSN6503 (02/81)

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YMP-SR-89-005

TITLE: LANL QAPP TRAINING AND UPDATE

DURATION: 1 PM - 4 PM

DATE: 4-20-88

INSTRUCTOR: H. P. NUNES

ORG: LATA

PHONE: 662-1753

[illegible]

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ENCLOSURE A TO
YMP-SR-89-005

NNWSI PROJECT TRAINING FORM

TITLE: LANL QAPP TRAINING AND UPDATE

DURATION: 1 PM - 4 PM

DATE: 4-20-88

INSTRUCTOR: H. P. NUNES

ORG: LATA

PHONE: 662-1753

ATTENDEES

[illegible]

YMP-SR-89-005

NNWSI PROJECT TRAINING FORM

TITLE: GAPP, R2
DURATION: 1 1/2 HRS DATE: 4/18/EF
INSTRUCTOR: JIDNUNES ORG: OAS PHONE: 662-1753

ATTENDEES

[illegible]

4. Schedule for Completion

The survey and additional modifications to the QAPP, R3, training guide, noted in no. 3 above, will be completed by September 30, 1988.

LOS ALAMOS NATIONAL LABORATORY
NNWSI
CHANGE REQUEST

Change Request No. 050
Date 8-22-88
ENCLOSURE A TO
YMP-SR-89-005

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

Change Requested:

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

5.2.1 Position Descriptions

NNWSI 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.

Reason for Change:

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

*Withdrawn 9/28/88
George QAS/PM*

*CR050 modified to CR050, Rev1
on 9/28/88.
CR050, Rev1 written by
sent for review 9/29/88*

Change Requested By	<u>Patricia M. Tilling</u>	Date	<u>Aug. 29, 1988</u>
Reviewed By	<u>[Signature]</u>	Date	<u>8-29-88</u>
QAPL Approval	<u>[Signature]</u>	Date	<u>8.29.88</u>
TPO Approval	<u>[Signature]</u>	Date	<u>8/30/88</u>
Effective Date	<u>August 30, 1988</u>	Date	<u></u>

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LOS ALAMOS NATIONAL LABORATORY
YMP
CHANGE REQUEST

Change Request No. 050 Rev. 1

Date 9-29-88

ENCLOSURE A TO
YMP-SR-89-005

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.

*sent to review
9/29/88*

C. G. P. / Remove when original is filed

Change Requested By _____ Date _____

Reviewed By _____ Date _____

QAPL Approval _____ Date _____

TPO Approval _____ Date _____

Effective Date _____

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Change Request No. 050, Rev. 1

Date 9-29-88

Change Requested: (concluded)

ENCLOSURE A TO

YMP-SR-89-005

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.

Los Alamos NNWSI Project CORRECTIVE ACTION REPORT

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 025 Initiation Date: 26 July 1988 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-3		
Condition Requiring Corrective Action: See attached, Page 1 of 2. <div style="text-align: center;">Void SEE CAR No. 025 REV. 1 James George/ George 12/13/88</div>		
Corresponding Documentation: NRC Mini-Audit Report		
Assigned To: J. J. George		Date: 26 July 1988
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2. <div style="text-align: right;">"BEST AVAILABLE COPY"</div>		
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Date: 7/26/88
Corrective Action Completed:		Date:
Implementation Verified By:		Date:
CAR Closeout:		Date:

RESPONSE TO CAR NO. 025

REQUIREMENT

LANL-NNWSI-QAPP - Section 1.0 Organization, Subsection 1.1 LANL NNWSI Project:

"Personnel performing QA Level I and II activities shall be certified to show competence to perform their specific duties, e.g., design verification, document review, surveillance, etc. ...The documentation of certification shall identify the basis for certification. ...Certification shall be evaluated on an annual basis."

DESCRIPTION OF FINDING

The audit team examined the quality assurance (QA) files containing records of personnel certification associated with Scientific Investigation Plan (SIP) No. 86/4.2. The Los Alamos form used to record the various certification appears to be used to certify an individual to selected Quality and Detailed Procedures rather than certifying, for instance, the Quality Assurance Liaison (QAL) as having competence to perform specific duties or responsibilities as identified in Table 1.1. The audit team felt the certifications examined contain minimal information on the qualifications of the LANL staff supporting the SIP No. 86/4.2 and thus may not be adequate for licensing. Similarly, it was noted by the audit team that there were no specific qualifications identified for personnel performing the quality related function of Quality Assurance Implementation Manager (QAIM), Quality Assurance Support and the QAL.

LANL CORRECTIVE ACTION TAKEN

1. Specific Deficiency Corrective Action

The LANL QAPP has been extensively revised and reissued as Revision 2. This revision was reviewed and approved by WMPO on April 4, 1988. Section 2.0, "Quality Assurance Program," has been revised to include personnel certification, evaluations, and orientation. Subsections 2.4.1 through 2.4.4 establish the overall LANL program requirements and the required documentation. Further, the administrative procedure, QP-02.1, has been issued, and the annual certification process of Project personnel has been completed. The results of this certification process are on file at the file center of the Quality Assurance Support.

2. Root Cause Determination

The requirements and procedural directions established were inadequate to accomplish and document the appropriate evaluation and certification of NNWSI personnel.

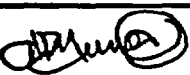
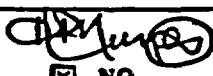
3. Steps to Prevent Recurrence

Additional documented training to the revised QAPP, R3, will be given to all NNWSI participants. A survey will be conducted to ascertain the effectiveness of the above training using the recertification results of 1988. Necessary changes to the training guide and QP-02.1 will be documented as a part of the survey.

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ENCLOSURE B TO
YMP-SR-89-005

Los Alamos NNWSI Project CORRECTIVE ACTION REPORT

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 024, Rev. 2 Initiation Date: 22 November 1988 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-1			
Condition Requiring Corrective Action: See attached, Page 1 of 2.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: H. P. Nunes 		Date: 22 November 1988	
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 		Date: 12/12/88	
Corrective Action Completed:		Date:	
Implementation Verified By:		Date:	
CAR Closeout:		Date:	

RESPONSE TO CAR NO. 024, Rev. 2

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP - Section 1.0, Organization, Subsection 1.1 LANL NNWSI Project:

"The persons performing QA functions shall have sufficient authority and organization freedom to identify problems; to initiate, recommend, or provide solutions; to verify implementation of solutions; and to stop unsatisfactory work. ...The QAIM has the authority to resolve disputes involving quality."

DESCRIPTION OF FINDING

The audit team examined the LANL-NNWSI-QAPP and implementing Quality Assurance Procedures (QPs) to determine if this requirement was addressed. Table 1.1 in the LANL-NNWSI-QAPP identifies that the Quality Assurance Implementation Manager (QAIM) has the responsibility for "conflict resolution." There appears to be no further reference in the LANL-NNWSI-QAPP or the QPs that address how this requirement is to be implemented.

LANL CORRECTIVE ACTION TAKEN

1. Specific Deficiency Corrective Action

The LANL QAPP has been extensively revised and reissued as Revision 2. This revision was reviewed and approved by WMPO on April 4, 1988. Section 1.0, "Organization," Table 1-1, Footnote e, clearly states that the Quality Assurance Project Leader (QAPL) will resolve quality-related conflicts. Footnote e, states the following:

"The QAPL is responsible for resolving quality-related conflicts that have not been resolved at lower levels. Any person involved in the NNWSI Project may appeal a dispute over QA to the LANL TPO. The QAPL may elevate unresolved conflicts to the Project Quality Manager (PQM) at the WMPO. QA personnel can elevate unresolved conflicts through the QAPL to the Program Director of Nuclear Programs at LANL and to the PQM at WMPO."

In the LANL procedure on Corrective Action, TWS-QAS-QP-21, R0, all NNWSI Project personnel have been identified as having the responsibility and authority to initiate a corrective action report. See QP-21, R0, Section 4.0.

The mechanism by which all NNWSI personnel have the authority and responsibility to initiate a stopwork order is through an implementing procedure which is under development.

2. Root Cause Determination

The root cause was failure to establish this requirement in the QAPP, R1, as the dispute resolution mechanism for quality-related matters, and to adequately train LANL staff members.

ENCLOSURE B TO
YMP-SR-89-005

3. Steps to Prevent Recurrence

A training memorandum was issued to all LANL NNWSI personnel August 19, 1988, (TWS-N5/08-88-51) to call their attention to QP-21, R0 which gives them the authority and responsibility to initiate CARs if they observe any activity adverse to quality.

Also, the QAPP training manual has been revised to include information on conflict resolution and initiation of CARs.

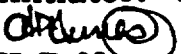

The stopwork implementing procedure is in preparation.

4. Schedule for Completion

The stopwork procedure will be included in the LANL Quality Assurance Manual and training on the procedure will be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone  H. P. Nunes, N-5, X7-8039		CAR No: 026, Rev. 2 Initiation Date: 24 January, 1989 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-4			
Condition Requiring Corrective Action: See attached, Page 1 of 2.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: J. J. George		Date: 24 January, 1989	
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED		<input type="checkbox"/> YES  <input checked="" type="checkbox"/> NO	Date: 1/24/89
Corrective Action Completed:		Date:	
Implementation Verified By:		Date:	
CAR Closeout:		Date:	

RESPONSE TO CAR NO. 026, Rev. 2

ENCLOSURE B TO

YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP - Section 2.0 Quality Assurance Program Subsection 2.2 additional requirements for QA Level I Activities:

"All personnel performing quality-related activities shall have the training (including refresher training, as appropriate) to the extent necessary to perform this specific function. ...The need for training shall be evaluated and documented on an annual basis."

DESCRIPTION OF FINDING

The audit team examined the quality assurance (QA) training files for the personnel associated with Scientific Investigation Plan (SIP) No. 86/4.2, Mineralogy/petrology program for the Nevada Nuclear Waste Site Investigation (NNWSI). It was noted that the training records only included names of individuals who have had the QA orientation training. There was no record of a management determination of who needs or requires training or who may be performing quality-related activities. There was no record of an annual training evaluation activity. The training records covered three years.

LANL CORRECTIVE ACTION TAKEN

1. Specific Deficiency Corrective Action

The LANL QAPP has been extensively revised and reissued as Revision 2. This revision was reviewed and approved by WMPO on April 4, 1988. Section 2.0, "Quality Assurance Program," has been revised to include requirements associated with personnel training. Subsection 2.4.1 through 2.4.4 establish the overall LANL program requirements and the required documentation. QP-02.1, R1, will be revised, see CAR No. 041, and it will include requirements for the review of each NNWSI person and the procedures which affect him/her. Additional training needs for all personnel will be evaluated and documented annually. The LANL-NNWSI-QAPP, R2, resulted in a complete staff retraining using a formal seminar-style training exercise. See QAPP, R2 training records in CAR No. 025.

2. Root Cause Determination

Inadequate requirements and procedural direction were established in an effort to accomplish and document the appropriate evaluation and certification of NNWSI personnel.

3. Steps to Prevent Recurrence

Specific administrative procedures will be prepared to address the WMPO training management plan directive, "Nevada Nuclear Waste Storage Investigations Project Training Management Plan," dated May 10, 1988. Once the procedures are completed, training will be conducted to ensure that all responsible managers and principal investigators are aware of the training management plan requirements and documentation.

ENCLOSURE B TO
YMP-SR-89-005

An index matching NNWSI individuals and the procedures that affect each will be prepared for inclusion in QP-02.2. The QP-02.1 revision will document certification and qualification procedures.

4. Schedule for Completion

The QP-02.1 and QP-02.2 revisions will be issued by January 31, 1989. Training to these procedures will be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO

YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 027, Rev. 3 Initiation Date: 2 December 1988 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-5			
Condition Requiring Corrective Action: See attached, Page 1 of 2.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: A. M. Pendergrass <i>A. M. Pendergrass</i>		Date: 2 December 1988	
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <i>HP Nunes</i>		Date: 12/12/88	
Corrective Action Completed:		Date:	
Implementation Verified By:		Date:	
CAR Closeout:		Date:	

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RESPONSE TO CAR NO. 027, Rev. 3

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP, Section 4.0: Procurement Document Control, Subsection 4.2.2: Procurement Document Review:

"A review of the procurement documents and changes to those shall be made to ensure that documents transmitted to the prospective supplier(s) include appropriate provisions to ensure that items or services will meet the specified requirements. To review shall include, as a minimum, the cognizant technical organization and QAL.

The reviews by the QAL will assure that the following requirements are met:

- * QA requirements are correctly stated
- * there are adequate acceptance and rejection criteria, and
- * procurements documents have been prepared, reviewed, and approved."

DESCRIPTION OF DEFICIENCY

The audit team examined the procurement quality assurance (QA) files at both the Earth and Space Sciences (ESS-1) Group and at the Los Alamos Technical Associates (LATA) office. The method used to record the review results and the subsequent requisition concurrence action by the Quality Assurance Liaison (QAL) is not identified, and the method is not addressed in the procedure, QP-06 "NNWSI Procurement Procedures."

LANL CORRECTIVE ACTION TAKEN

1. Specific Deficiency Corrective Action

To reflect the revised requirements of WMPO NVO-196-17, two administrative procedures, QP-04.1, and QP-04.3, were issued to specifically direct procurement activities for the Project. QP-04.1 is directed at the procurement of services and items (other than engineered items) used extensively in research and development. QP-04.3 is directed at the procurement of engineered items through use of an approved vendors listing. These procedures direct the method used to document the review results and the concurrence by the QAL. In addition Change Requests (CR) were drafted to specifically address the requirements of QAPP, R2, 4.2.2 as stated above. Subsequently, CR 044, which would have modified QP-04.1, and CR 045, which would have modified QP-04.3, were withdrawn because of inadequate review (see CAR 050). QP-04.1 and QP-04.2 are undergoing revision to address revisions to the QAPP as well as the specific corrective actions identified by this CAR.

2. Root Cause Determination

Previous procedures involving procurement failed to identify the necessary requirements for documentation.

3. Steps to Prevent Recurrence

Training will be conducted for each of the above quality procedures to ensure that all NNWSI personnel associated with procurement are aware of Project requirements for documentation.

ENCLOSURE B TO

YMP-SR-89-005

4. Schedule for Completion

QP-04.1 is scheduled to be issued by 12/16/88, and QP-04.3 is scheduled to be issued by early January 1989. Training to both revised procedures is scheduled to be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 028, Rev. 2 Initiation Date: 2 December 1988 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-6			
Condition Requiring Corrective Action: See attached, Page 1 of 1.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: H. P. Nunes		Date: 2 December 1988	
Cause and Recommended Corrective Action: See attached response, Page 1 of 1.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Date: 12/12/88
Corrective Action Completed:			Date:
Implementation Verified By:			Date:
CAR Closeout:			Date:

RESPONSE TO CAR NO. 028, Rev. 2

REQUIREMENT

LANL-NNWSI-QAPP, Section 5.0: Instructions, Procedures, and Drawings,
Subsection 5.2.3: Criteria:

"Instruction, Procedures, or drawings shall include appropriate quantitative or qualitative criteria for determining that important activities have been satisfactorily accomplished."

DESCRIPTION OF DEFICIENCY

During the review of the detailed Procedures (DP), the technical audit team discovered that acceptance criteria are not included in most of the procedures. A few of the procedure (e.g., TWS-ESS-DP-04, R4. Thin Section Preparation Procedure, TWS-ESS-DP-06, R2 Carbon Coating of Samples) do include specifications that can be considered to be acceptance criteria. Most of the other procedures, however, do not contain these criteria. Since no specific acceptance criteria are contained in the DPs, it is possible that the principal investigators can use different acceptance criteria when performing the same analysis. An example of this situation was found during the audit, where investigators analyzing zeolites with the electron microprobe use slightly different acceptance criteria during the examination of the same mineral phases. This does not appear to present a problem in this case, however, as it was learned that comparable results are produced using the different criteria. This may not always be the case, however, for all analytical.

LANL CORRECTIVE ACTION**1. Specific Deficiency Corrective Action**

A review of all detailed technical procedures will be made by each group to ascertain the appropriateness of the above stated deficiency. Accept/reject criteria will be included where appropriate to the LANL detailed technical procedures. A memorandum will be issued to each group directing that this review be performed and documented. Subsequently, all groups were directed to review and revise DPs to include additional provisions as stipulated in QP-05.2, R1.

2. Root Cause Determination

The root cause was determined as the inadequate procedural direction given for the preparation and documentation of the detailed technical procedures.

3. Steps to Prevent Recurrence

A specific lesson plan will be created for DP-05.2, "Preparation of Detailed Technical Procedures," and training will be given to each affected group.

4. Schedule for Completion

The memorandum directing all groups to review DPs to include accept/reject criteria where appropriate was issued on August 19, 1988 (TWS-N5/08-88-45). All DPs will be revised by February 28, 1988.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 029, Rev. 2 Initiation Date: 2 December 1988 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-7			
Condition Requiring Corrective Action: See attached, Page 1 of 1.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: H. P. Nunes		Date: 2 December 1988	
Cause and Recommended Corrective Action: See attached response, Page 1 of 1.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Date: 12/12/88
Corrective Action Completed:		Date:	
Implementation Verified By:		Date:	
CAR Closeout:		Date:	

RESPONSE TO CAR NO. 029, Rev. 2

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP, Section 5.0: Instructions, Procedures and Drawings

LANL Quality Procedure TWS-MSTQA-QP-14, R1, Research and Development (Experimental) Procedure, Section 3.1.1

"Laboratory notebook entries shall clearly delineate the following:

One time entries for each research and development activity or subset experiments....

- **Equipment and materials to be used....**

Daily entries--these entries are to be made daily or as important ideas, observations, date, etc., develop....

- **Sample (core specimen, section or thin section) identification and history while in experimenter's possession."**

DESCRIPTION OF DEFICIENCY

Laboratory notebook TWS-ESS1-12/84-7 was examined and compared to the requirements of QP-14. The audit team found that the requirement for the identification of equipment and materials to be used does not specify what information should be recorded. With respect to the requirement for recording the sample history, the auditors and principal investigators (PI) did not fully understand the meaning of this requirement. The audit team recommends that QP-14 be revised to clarify these two items.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

A Change Request (CR) 043, was drafted to clarify the requirements regarding the documentation of equipment and materials used during the conduct of research activities. This CR was subsequently withdrawn because of inadequate review (See CAR 050). QP-14 is currently undergoing revision and will be reissued as QP-03.5. This revised procedure will clarify the requirements identified by this CAR.

2. Root Cause Determination

The root cause was determined to be inadequate procedural direction given for identification of equipment.

3. Steps to Prevent Recurrence

QP-14 is being revised as indicated above. Training to the revised procedure will be conducted following its issuance.

4. Schedule for Completion

QP-03.5 is scheduled to enter the review stage on 12/2/88, and tentatively scheduled for issuance by 2/28/88.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 030, Rev. 2 Initiation Date: 2 December 1988 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-8			
Condition Requiring Corrective Action: See attached, Page 1 of 2.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: J. J. George / <i>James George</i>		Date: 2 December 1988	
Cause and Recommended Corrective Action: See attached response, Page 1 and 2 of 2.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Date: 12/12/88
Corrective Action Completed:		Date:	
Implementation Verified By:		Date:	
CAR Closeout:		Date:	

RESPONSE TO CAR NO. 030, Rev. 2

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP, Section 5.0: Instructions, Procedures and Drawings, Subsection 5.1: Basic Requirements, and 5.2.2: Instructions and Procedures

"If state-of-the-art test procedures, experiments, data acquisition and reduction, and interpretation of results are involved in site characterization studies, then the organization responsible for the activity shall conduct an independent technical review."

"Work ... shall be prescribed in clear, complete and documented instructions...."

DESCRIPTION OF DEFICIENCY

"State-of-the-art" and "independent" are not defined in the LANL-NNWSI-QAPP. The audit team examined numerous Quality Assurance Procedures (QP) and Detailed (technical) Procedures (DPs). DP-101, "Sample Identification and Control for Mineralogy-Petrology Studies," was written by a supervisor but reviewed by a subordinate. DP-25, "Clay Mineral Separation and Preparation for X-ray Diffraction Analysis," was prepared by a principal investigator (PI) but reviewed by a technician. In both cases, the reviewer is a subordinate of the preparer and, thus, would probably not be considered "independent." In addition, the audit team had no criteria by which to determine if these procedures are "state-of-the-art." Also, procedures for technical reviews of procedures have not yet been developed. Thus, the content of the review could be in question at a later time.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

The QA plan in effect at the time of the audit was LANL-NNWSI-QAPP, R1. Before issuance of this CAR, Revision 2 to that plan was issued. QAPP, R2, omits the criterion that "state-of-the-art" procedures must be reviewed. Instead, in Section 5.3, QAPP, R2, stipulates that all technical procedures will receive a technical review. The term "independent" is not used in reference to this review.

CR 051 to QP-05.2 was issued to define the terms "independent" and "state-of-the-art," but it was subsequently withdrawn because of inadequate review. As indicated above, neither term is currently used in the QAPP with reference to preparation of technical procedures. However, DP-05.1 is undergoing revision, and will clarify the nature of the technical reviews stipulated in Section 5.3 of QAPP, R2.

2. Root Cause Determination

The root cause was determined to be inadequate procedural direction on technical reviews of instructions, procedures, and drawings.

3. Steps to Prevent Recurrence

All personnel will be trained to the requirements of this revised procedure.

ENCLOSURE B TO

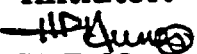
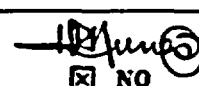
YMP- SR- 89-005

4. Schedule for Completion

The revised procedure QP-05.2 is scheduled to be issued by December 16, 1988.
Required revisions to the DPs with appropriate technical review, will be completed
by February 28, 1988.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone  H. P. Nunes, N-5, X7-8039		CAR No: 031, Rev. 2 Initiation Date: 24 January, 1989 QA Level: 1	
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-9			
Condition Requiring Corrective Action: See attached, Page 1 of 2.			
Corresponding Documentation: NRC Mini-Audit Report			
Assigned To: A. M. Pendergrass		Date: 24 January, 1989	
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.			
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 	Date: 1/24/89
Corrective Action Completed:			Date:
Implementation Verified By:			Date:
CAR Closeout:			Date:

RESPONSE TO CAR NO. 031, Rev. 2

ENCLOSURE B TO
YMP- SR- 89-005

REQUIREMENT

LANL-NNWSI-QAPP - Section 7.0 Control of Purchased Material, Equipment and Services Subsection 7.2.2 Source Evaluation and Selection

"The selection of suppliers shall be based on evaluation of their capability to provide items or services in accordance with the requirements of the procurement documents before awarding of the contract. ... Measures for evaluation and selection of procurement sources, and the results thereof, shall be documented and shall include one or more of the following items:

- suppliers technical and quality capability as determined by a direct evaluation of his facilities and personnel and the implementation of his QA program."

LANL Quality Procedure TWS-MSTQA-QP-06, R2, NNWSI Procurement Procedures Section 4.13

"QA Program Requirements - Procurement documents shall require that the supplier have a documented QA program that implements either portions or all of the requirements of the NNWSI quality assurance program."

DESCRIPTION OF DEFICIENCY

The audit team examined two Earth and Space Sciences (ESS-1) Quality Level 1 requisitions for services from Case Western and the University of California-Riverside, and one Quality Level II requisition from the University of New Mexico. The audit team performed a review of the three supplier quality assurance (QA) documents and determined that the subject quality assurance programs were not adequate or appropriate for the services being procured.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

No prior evaluation of Case Western or the University of New Mexico was performed to verify acceptability of their QA programs. A subsequent evaluation by LANL found their programs to be acceptable. No data were compromised as a result of the programmatic violation. The University of California-Riverside program was reviewed for completeness at LANL and was found to be satisfactory for use on the NNWSI Project. This is permitted under LANL procurement procedures. Detailed information is attached to this CAR and has been placed in each respective PR file.

2. Root Cause Determination

Personnel have not been adequately trained to the NNWSI procurement requirements.

ENCLOSURE B TO
YMP-SR-89-005

3. Steps to Prevent Recurrence


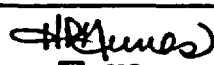
Administrative procedures pertaining to purchasing have been revised to reflect revisions in the QAPP. Detailed training will be conducted for all three administrative procedures involving purchasing--QP-04.1, QP-04.2, and QP-04.3.

4. Schedule for Completion

This training will be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
Ymp- SR- 89-005

Initiator: Signature/Organization/Phone  H. P. Nunes, N-5, X7-8039		CAR No: 032, Rev. 2 Initiation Date: 24 January, 1989 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-10		
Condition Requiring Corrective Action: See attached, Page 1 of 2.		
Corresponding Documentation: NRC Mini-Audit Report		
Assigned To: A. M. Pendergrass		Date: 24 January, 1989
Cause and Recommended Corrective Action: See attached response, Pages 1 and 2 of 2.		
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO 		Date: 1/24/89
Corrective Action Completed:		Date:
Implementation Verified By:		Date:
CAR Closeout:		Date:

RESPONSE TO CAR NO. 032, Rev. 2

ENCLOSURE B TO

YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP - Section 7.0 Control of Purchased Material, Equipment and Services Subsection 7.2.2 Source Evaluation and Selection

"Measures for evaluation and selection of procurement sources, and the results thereof, shall be documented and shall include one or more of the following items:

- **suppliers technical and quality capability as determined by a direct evaluation of his facilities and personnel and the implementation of his QA program."**

LANL Quality Procedure TWS-QAS-QP-22, R0, NNWSI supplier Qualification Section 4.4

"The survey team leader shall furnish the QAS, QAIM and the QAL/Requestor with a summary report of the supplier qualifications and/or pre-award survey results, including actions pending and recommendations relative to qualifications of the supplier. A copy of all related subsequent correspondence shall be furnished to the QAS, QAIM and the QAL/Requestor."

DESCRIPTION OF DEFICIENCY

The audit team examined the quality assurance (QA) procurement file for the University of New Mexico (Purchase Order U9012, dated 10/1/84). A survey was performed by the Quality Assurance Support (QAS) (lead) and the Quality Assurance Liaison (QAL) on January 28, 1987. The Earth and Space Sciences (ESS-1) Resident File or the Los Alamos Technical Associates (LATA) QA file did not contain a summary report of the results of the survey or any subsequent correspondence regarding this supplier.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

The ESS QAL prepared a memorandum (TWS-ESS-1/87-22, January 29, 1987), which reported the results of the survey, and submitted it to the file. A copy of the results was sent to all indicated parties. No survey report was issued on the University of New Mexico procurement. (Refer to CAR No. 31, R1, for details.)

2. Root Cause Determination

An initial qualification survey was never performed, and the subsequent actual survey performed was never properly documented as a survey. This procedural violation was an isolated case and resulted from an inadequate understanding of the procurement procedure, QP-22, which was in place during the survey.

3. Steps to Prevent Recurrence

Detailed training to the now revised procurement procedures, QP-04.1, QP-04.2, and QP-04.3, will be given and will address specific responsibilities for supplier program acceptance in the attendant documentation.

4. **Schedule for Completion**

The training will be completed by February 28, 1989.

ENCLOSURE B TO
YMP-SR-89-005

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 033, Rev. 2 Initiation Date: 2 December 1988 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-11		
Condition Requiring Corrective Action: See attached, Page 1 of 1.		
Corresponding Documentation: NRC Mini-Audit Report		
Assigned To: A. M. Pendergrass <i>A.M. Pendergrass</i>		Date: 2 December 1988
Cause and Recommended Corrective Action: See attached response, Page 1 of 1.		
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <i>H. P. Nunes</i>		Date: 12/12/88
Corrective Action Completed:		Date:
Implementation Verified By:		Date:
CAR Closeout:		Date:

RESPONSE TO CAR NO. 033, Rev. 2

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP, Section 7.0: Control of Purchased Material, Equipment, and Services, Subsection 7.3.10: Annual Supplier Evaluation

"When required, annual supplier evaluations shall be documented and, if applicable, the following shall be considered:

- **review of supplier furnished documents and records such as certificates of conformance, nonconformance reports, audits and receiving inspections..."**

DESCRIPTION OF DEFICIENCY

The audit team examined the LANL-NNWSI-QAPP and the implementing Quality Assurance Procedures (QP) to determine if this requirement was addressed and implemented. Apparently this requirement has not been addressed in the quality assurance (QA) procedural system to date.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

A change request (CR) 047 was prepared to modify TWS-QAS-QP-04.3 to require the QAPL or his delegate to re-evaluate the Approved Vendor's List (AVL) to determine which suppliers should be re-evaluated. The CR was subsequently withdrawn because of inadequate review (See CAR 050). QP-04.3 is currently being revised because of changes in the QAPP, and additionally QP-04.3 will stipulate the nature of the annual review of the AVL.

2. Root Cause Determination

The root cause was determined as the incomplete application of the NNWSI Project requirements.

3. Steps to Prevent Recurrence

A review of purchase orders to date found no inappropriate purchase in place. Most items purchased by LANL are commercial-grade laboratory standards, analytical equipment, or laboratory services. To prevent inadvertent procurements from suppliers who are not on the approved vendors list for engineered items or services, specific training will be conducted for the revised QP-04.3.

4. Schedule for Completion

QP-04.3, R1, is scheduled to be issued by early January 1989, with training to be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone H. P. Nunes, N-5, X7-8039		CAR No: 034, Rev. 3 Initiation Date: 2 December 1988 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-12		
Condition Requiring Corrective Action: See attached, Page 1 of 1.		
Corresponding Documentation: NRC Mini-Audit Report		
Assigned To: H. P. Nunes <i>H. P. Nunes</i>		Date: 2 December 1988
Cause and Recommended Corrective Action: See attached response, Page 1 of 1.		
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <i>H. P. Nunes</i>		Date: 12/12/88
Corrective Action Completed:		Date:
Implementation Verified By:		Date:
CAR Closeout:		Date:

RESPONSE TO CAR NO. 034, Rev. 3

ENCLOSURE B TO

YMP-SR-89-005

REQUIREMENT

LANL-NNWSI-QAPP, Section 7.0: Control of Purchased Material, Equipment, and Services, Subsection 7.2.5: Control of Documents Generated by Suppliers

"Documentation generated by suppliers shall be controlled, handled, and approved in accordance with LANL implementation procedures."

DESCRIPTION OF DEFICIENCY

The audit team examined the Implementing Quality Assurance Procedures (QP) to determine if this requirement was addressed and implemented. Apparently this requirement has not been addressed in the quality assurance (QA) procedural system to date.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

LANL has recently revised all of the procurement procedures. The revised QP-04.1, R0, specifically addresses the need to specify the form, content, and submission of reports, if required, in the procurement documentation. A change request (CR 046) was prepared to clarify the ways in which documents generated by a supplier are controlled as YMPO Project records. The CR was subsequently withdrawn because of inadequate review. QP-04.1, R0, is currently undergoing revision to reflect changes in the QAPP and to incorporate the corrective actions described above. Review of Project resident files and notebooks has shown that supplier-generated documents are being controlled and there are no adverse impacts to the Project.

2. Root Cause Determination

Inadequate procedure/direction regarding control of documents generated by suppliers.

3. Steps to Prevent Recurrence

Revisions to QP-04.1, R0, are in progress. Training to the revised QP-04.1 will be conducted.

4. Schedule

QP-04.1, R1, will be issued by December 16, 1988. Training for this CR will be completed by February 28, 1989.

Los Alamos NNWSI Project
CORRECTIVE ACTION REPORT

ENCLOSURE B TO
YMP-SR-89-005

Initiator: Signature/Organization/Phone <i>HPN</i> H. P. Nunes, N-5, X7-8039		CAR No: 040, Rev. 2 Initiation Date: 2 December 1988 QA Level: 1
Title of Work to which CAR Applies: NRC Audit of LANL, June 8, 1987, Appendix B, Page B-19		
Condition Requiring Corrective Action: See attached, Page 1 of 2.		
Corresponding Documentation: NRC Mini-Audit Report		
Assigned To: M. F. McGowan <i>M. F. McGowan</i>		Date: 2 December 1988
Cause and Recommended Corrective Action: See attached response, Page 1 and 2 of 2.		
QAPL Concurrence: DOE ORDER 5000.3, UOR REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <i>HPN</i>		Date: 12/12/88
Corrective Action Completed:		Date:
Implementation Verified By:		Date:
CAR Closeout:		Date:

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RESPONSE TO CAR NO. 040, Rev. 2

ENCLOSURE B TO
YMP-SR-89-005

REQUIREMENTS

LANL-NNWSI-QAPP, Section 13.0: Handling, Shipping, and Storage

LANL Quality Procedure TWS-MSTQA-QP-04, R2, Handling, Storage, and Shipping Procedure, Sections 6.1 and 8.0.

"Periodic inspections shall be performed to assure that storage areas are being maintained in accordance with specified storage requirements."

"Approved procedures, reports, personnel qualifications, test equipment calibration records, test deviation or exception records, and inspection and examination records shall be prepared and maintained in accordance with the NNWSI Records Control Procedure (TWS-MSTQA-QP-09)."

DESCRIPTION OF DEFICIENCY

QP-04, Sections 6.1 and 8.0, requires periodic inspections of storage areas and that records will be maintained according to QP-09, "Records Control Procedure." Through interviews with one of the principal investigators, the NRC audit team determined that informal inspections of the sample storage room are conducted frequently but these inspections are not documented.

LANL CORRECTIVE ACTION

1. Specific Deficiency Corrective Action

TWS-QAS-QP-13.1, Handling, Storage, and Shipping Procedure has been approved and issued April 5, 1988. This QP-13.1 address the NRC concern for sample storage requirements by directing that all appropriate DPs address the storage requirements as specified b QP-13.1 CR 048 is being prepared to require documentation and immediate corrective action to these DPs as necessary to bring the DPs into compliance.

2. Root Cause Determination

Personnel were not trained to properly implement the requirements of QP-04, R2, as stated in the NRC deficiency description.

3. Steps to Prevent Recurrence

CR 048 was prepared to address the issue of bringing DPs into compliance with the requirements of QP-13.1. A training memo was issued (TWS-N5-09-88-091) to alert PIs to the necessity for an immediate review of DPs for compliance. Subsequently, CR 048 was withdrawn because of inadequate review. Revisions to the QAPP, which reflect YMP 88-9, eliminate the need for periodic inspections of storage areas. All groups were directed to review all DPs to ensure compliance with the requirements of revised QP-05.2. These requirements include handling, shipping, and storage procedures. Procedures for sample handling, shipping, and storage, previously contained in QP-13.1, will instead be incorporated into QP-08.1, Control of Samples.

4. Schedule of Completion

ENCLOSURE B TO
YMP-SR-89-005

Revision of QP-08.1 will be initiated during January, 1989. Revision of DPs will be completed by February 28, 1989.

ENCLOSURE C TO

YMP- SR- 89-005

TWS-QAS-QP-02.1, R1

**PROCEDURE FOR PERSONNEL SELECTION,
INDOCTRINATION, AND QUALIFICATION**

Effective Date: 12/20/88

James George
James J. George
Quality Assurance Support

12/07/88
Date

H. P. Nunes
H. P. Nunes
Quality Assurance Project Leader

12/09/88
Date

D. T. Oakley
D. T. Oakley
Technical Project Officer

12/12/88
Date

PROCEDURE FOR PERSONNEL SELECTION, INDOCTRINATION, AND QUALIFICATION

1.0 PURPOSE

The purpose of this procedure is to establish the requirements used for the selection, indoctrination, certification, qualification, and evaluation of Los Alamos National Laboratory (LANL) personnel performing activities that affect quality on the Yucca Mountain Project (YMP or Project).

2.0 SCOPE

This procedure applies to all Project personnel assigned to perform, manage, or verify activities affecting quality. The procedure establishes and characterizes the requirements for position descriptions that set forth minimum personnel qualifications, including formal education and experience, and the appropriate indoctrination required before performing or initiating activities affecting quality. In addition, personnel performing activities that specifically require certification by applicable codes and standards shall be certified in accordance with the requirements specified in the involved codes or standards.

For purposes of this Project, the scope of this procedure does not include requirements for the training of personnel performing or verifying activities that affect quality.

3.0 REFERENCES

LANL-YMP-Quality Assurance Program Plan (QAPP).
TWS-QAS-QP-02.2, Procedure for Personnel Training.
TWS-QAS-QP-18.1, Procedure for Audits.

4.0 DEFINITIONS

4.1 Activities Affecting Quality

Activities affecting quality include deeds, actions, work, or performance of a specific function or task. The quality assurance (QA) program applies to activities affecting the quality of all Project systems, structures, and components important to safety, to the design and characterization of barriers important to waste isolation, and to the characterization of the Yucca Mountain site.

4.2 Position Description

A position description is used to establish, identify, and document the minimum personnel qualifications, including education and experience, and responsibilities for each position involved in the performance of activities that affect quality.

4.3 Indoctrination

Indoctrination includes required reading, classroom or other methods of instruction provided to personnel, who perform activities affecting quality, to familiarize them with programmatic and work-oriented documents applicable to the assigned activity.

4.4 Qualification Evaluation (of Personnel)

The evaluation of an individual's capabilities is based on a documented verification of the individual's relevant education and experience as compared to the minimum requirements established and specified in the position description.

5.0 RESPONSIBILITIES

Responsibilities of the Project employees, Principal Investigators (PI), supervisors, Technical Project Officer (TPO), Quality Assurance Project Leader (QAPL), Quality Assurance Liaisons (QAL), and Quality Assurance Support (QAS) staff are delineated in the procedure.

6.0 PROCEDURE

<u>Responsibility</u>	<u>Action</u>
6.1 Preparation of Position Descriptions	
Division Leader	1. Prepare position description for TPO.
Technical Project Officer	2. Prepare position description for the QAPL.
Quality Assurance Project Leader	3. Prepare position descriptions for the QALs and QAS staff positions.
Division and/or Group Leaders or their Designee(s)	4. Prepare descriptions for the PI positions.
Principal Investigators and/or their Supervisors or their Designees	5. Establish descriptions for each position, involved in the performance of activities affecting quality, such as scientific investigators, Resident File Custodian, technical support staff, and any other position the PI supervises. The position descriptions shall establish the minimum education and experience requirements necessary for the performance of the Project activities.
Quality Assurance Project Leader and/or Quality Assurance Liaison	6. May assist PIs in establishing position requirements that set forth the minimum personnel qualifications.

Responsibility	Action
Quality Assurance Support Staff	<p>7. If required, assist the QAPL prepare position descriptions for Project activities affecting quality.</p> <p>After initial preparation, the position description will be changed only if position responsibilities or definitions change.</p>
6.2 Personnel Selection	
Yucca Mountain Project Personnel	<p>8. Each Project employee shall complete, with the relevant correct information, and sign the Project Resume Form (Attachment 1, Parts A and B). The employee will update the resume as necessary.</p>
Supervisor(s) of Yucca Mountain Project Personnel	<p>9. Supervisors are responsible for determining and documenting that personnel selected have relevant education and experience commensurate with the minimum requirements specified in the position description. Supervisors are responsible for contacting the personnel department to verify that it has performed a background verification of education and experience for selected personnel. This verification is documented concurrently with step 10 by signing and dating the Project Resume Form.</p>
6.3 Personnel Qualifications	
Supervisor(s) of Yucca Mountain Project Personnel	<p>10. Verify resumes of employees or potential employees for accuracy and conformance to position description requirements, by reviewing the Project resume against the position description, and document verification of relevant education and experience by signing and dating the Project Resume Form (Attachment 1). Send the original to QAS Files, one copy to the group</p>

Responsibility	Action
	Resident File, and two copies to the Records Processing Center (RPC) for dual records storage.
	11. Verify resume updates for accuracy and conformance to position requirements and document verification by signing and dating the updated Project Resume Form. Send the original to QAS files, one copy to the group Resident File, and two copies to RPC to be attached to either the original or the copy of the most recent resume.
Quality Assurance Project Leader	12. The QAPL will ensure that personnel performing activities specifically requiring certification by applicable codes and standards (auditors and lead auditors, inspectors, etc.) shall be certified in accordance with the applicable detailed requirements.
6.4 Indoctrination	
Principal Investigator and/or Responsible Supervisor	13. Before assigning personnel to perform activities affecting quality, coordinate with the QAL and/or the QAS to determine and establish the initial orientation, indoctrination, and training requirements an employee must meet to accomplish Project activities. Refer to QP-02.2, Procedure for Personnel Training, for examples of minimum training requirements matrix.
Quality Assurance Liaisons and/or Quality Assurance Support Staff	14. Before Project personnel perform activities affecting quality, provide indoctrination as to the purpose, scope, methods of implementation, and applicability of the following documents (including changes thereto), as a minimum, as they relate to the Project work to be accomplished by the employee:

<u>Responsibility</u>	<u>Action</u>
	<ul style="list-style-type: none">• LANL-YMP-QAPP;• Federal regulations, guidelines, and DOE Orders (e.g., 40 CFR 191; 10 CFR 960; 10 CFR 60; 10 CFR 50, Appendix B; 5700.6B);• industry standards (e.g., ANSI/ASME-NQA-1);• DOE Project-level documents (e.g., Site Characterization Plan; Systems Engineering, Configuration, Records, Exploratory Shaft Facility, and Training Management Plans; Advanced Acquisition or Assistance, Environmental Safety and Health Protection Implementation, QA and Financial and Performance Measurement Application Plans);• quality and technical procedures applicable to individual's responsibilities (see QP-02.2, Procedure for Personnel Training); and• orientation to the purpose and scope of the Yucca Mountain Project.

NOTE: Indoctrination may be accomplished by using mandatory reading lists, classroom presentations, video presentations, or combinations thereof.

6.5 Certification

Quality Assurance Liaison/Quality Assurance Support

15. Enter a record of personnel indoctrination, which includes the objective, content of indoctrination, date(s) of indoctrination, and other applicable information, on the Yucca Mountain Project Indoctrination Form (Attachment 2).

Responsibility	Action
Project Personnel	<p>16. Enter a record of personnel indoctrination (and training as per QP-02.2, Procedure for Personnel Training) on the Yucca Mountain Project Certification Form (Attachment 3, Part A). If mandatory reading lists are used, they shall be referenced on and attached to Attachment 3.</p> <p>17. Acknowledge receipt and understanding of initial indoctrination (and training as per QP-02.2) by signing and dating the Yucca Mountain Project Indoctrination Form (Attachment 3) and the Yucca Mountain Project Certification Form (Attachment 3, Part B).</p>
Quality Assurance Liaison/Quality Assurance Support	<p>18. Forward completed Indoctrination and Certification Forms (Attachments 2 and 3) to the Project employee's supervisor.</p>
Supervisor of Project Personnel	<p>19. Review records of indoctrination and certification and, if acceptable, sign and date Yucca Mountain Project Certification Form (Attachment 3, Part B). Send original Indoctrination and Certification Forms (Attachments 2 and 3) to the QAS files, one copy to the group Resident File, and two copies to the RPC for dual records storage.</p>
Quality Assurance Project Leader	<p>20. Ensure that all Project personnel have been indoctrinated and trained in the scope, purpose, and objective of their assignment and have been certified before they initiate activities affecting quality.</p>

Responsibility	Action
6.6 Proficiency Evaluation	
Supervisors of Project Personnel	21. After the initial determination of personnel qualifications, evaluate and document at least annually the job proficiency of personnel who perform activities affecting quality. Proficiency evaluations may be performed in conjunction with periodic or daily employee performance evaluations. The supervisor documents verification of the employee's satisfactory proficiency evaluation by completing and signing the Yucca Mountain Project Certification Form. Distribution of the completed evaluation is the same as in step No. 19.
Quality Assurance Liaison	22. Assist Project personnel supervisors in the performance of the annual proficiency evaluation and preparation of the annual Certification and Training Forms. The QAL may solicit internal input from the PI, supervisor, and employee as to the QP and DP training necessary for certification of the employee. If documents have not been revised during the evaluation period, retraining need not be performed as long as the individual is determined to be proficient in these documents' requirements.
Quality Assurance Support	23. Provide assistance as required by the QAPL. 24. Maintain original files of all qualification evaluations, indoctrination, training (as per QP-02.2), and proficiency evaluations.

7.0 QUALITY ASSURANCE REQUIREMENTS**7.1 Records**

Copies of all original documentation of personnel selection, indoctrination, certification, qualification, and evaluation shall be sent to the QAS files and a copy maintained in the group Resident File.

<u>Responsibility</u>	<u>Action</u>
Quality Assurance Support	25. Maintain originals of the following records: <ul style="list-style-type: none">• personnel resumes and updates,• position description,• indoctrination (and training per QP-02.2) forms,• certification forms, and• Annual Proficiency Evaluation Forms.
Resident File Custodian(s)	26. Maintain copy of all records listed in No. 25.
Records Processing Center	27. Maintain 2 copies of all records listed in No. 25 in dual storage facilities.

8.0 ATTACHMENTS

Attachment 1	Project Resume Form, Parts A and B
Attachment 2	Project Indoctrination Form
Attachment 3	Certification Form, Parts A and B

Los Alamos

YUCCA MOUNTAIN PROJECT RESUME

PARTICIPANT DATA (PLEASE PRINT)

NAME _____

OCCUPATION _____ WORK PHONE _____

RELEVANT EDUCATIONAL BACKGROUND

(BEGIN WITH MOST RECENT EDUCATION)

SCHOOL	LOCATION	MAJOR FIELD	DATES	DEGREE

EMPLOYMENT RECORD

(BEGIN WITH MOST RECENT RELEVANT EMPLOYMENT)

(LIST RELEVANT PAST EMPLOYMENT)

(USE ADDITIONAL SHEET IF REQUIRED)

MOST RECENT EMPLOYER _____ FROM _____ TO _____

ADDRESS _____

NAME AND TITLE OF SUPERVISOR _____

POSITION HELD _____

RESPONSIBILITIES _____

**LOS ALAMOS NATIONAL LABORATORY
YUCCA MOUNTAIN PROJECT RESUME
(CONCLUDED)**

GENERAL INFORMATION:

LIST PROFESSIONAL / SCIENTIFIC YUCCA MOUNTAIN PROJECT-RELEVANT PUBLICATIONS OF WHICH YOU ARE AUTHOR OR CO-AUTHOR OR PATENTS THAT YOU HOLD.

LIST RELEVANT PROFESSIONAL OR TRADE LICENSES, GIVING TYPE OF LICENSE, DATE ISSUED, AND EXPIRATION DATE.

LIST ADDITIONAL TRAINING, GIVING NAME AND DATE OF TRAINING.

APPROXIMATE TOTAL OF RELEVANT YEARS OF EXPERIENCE _____

I HEREBY CERTIFY THE CORRECTNESS OF THE ABOVE INFORMATION AND AUTHORIZE ITS RELEASE AS REQUIRED BY THE YUCCA MOUNTAIN PROJECT AND APPLICABLE CODES AND STANDARDS.

EMPLOYEE'S SIGNATURE

DATE

I HAVE REVIEWED AND VERIFIED RELEVANT EDUCATION AND EXPERIENCE OF _____ AND FIND HIM / HER QUALIFIED TO PERFORM HIS/HER YUCCA MOUNTAIN PROJECT JOB ASSIGNMENT AS DELINEATED IN THE APPLICABLE POSITION DESCRIPTION.

SIGNATURE

DATE

Los Alamos

YUCCA MOUNTAIN PROJECT INDOCTRINATION / TRAINING FORM

[illegible]

Los Alamos

**YUCCA MOUNTAIN PROJECT
CERTIFICATION FORM**

THE COMPLETION OF THIS FORM, TOGETHER WITH PREVIOUSLY COMPLETED FORMS FOR _____, DOCUMENTS THAT HE/SHE HAS RECEIVED APPROPRIATE ORIENTATION, INDOCTRINATION, AND TRAINING TO THE ADMINISTRATIVE AND TECHNICAL PROCEDURES THAT ARE REQUIRED IN THE PERFORMANCE OF ACTIVITIES THAT AFFECT QUALITY ON THE YUCCA MOUNTAIN PROJECT.

QUALITY ASSURANCE TRAINING

PROCEDURE #

TITLE

EXAMPLE

TECHNICAL PROCEDURES NECESSARY TO PERFORM JOB ASSIGNMENT

PROCEDURE #

TITLE

(USE ADDITIONAL SHEETS IF NECESSARY)

**LOS ALAMOS NATIONAL LABORATORY
YUCCA MOUNTAIN PROJECT
CERTIFICATION FORM**

(CONCLUDED)

_____ HAS BECOME FAMILIAR WITH THE DOCUMENTS
LISTED ON THIS FORM THROUGH IMPLEMENTATION, ON-THE-JOB TRAINING, AND TRAINING
AS SPECIFIED ON THE ENCLOSED PROJECT TRAINING FORMS. FURTHER TRAINING WILL BE
DOCUMENTED ON PROJECT TRAINING FORMS AND INCLUDED WITH THIS FORM.

I HEREBY ACKNOWLEDGE THAT THE ABOVE TRAINING HAS BEEN RECEIVED AND AUTHORIZE
THE RELEASE OF THE ABOVE INFORMATION AS REQUIRED BY THE YMP AND APPLICABLE
CODES AND STANDARDS. _____

PROFICIENCY EVALUATION INDICATES _____ PERFORMANCE OF
YMP ACTIVITIES.

SUPERVISOR'S SIGNATURE _____ DATE _____

PRINT SUPERVISORS NAME