

LOS ALAMOS NATIONAL LABORATORY  
YUCCA MOUNTAIN PROJECT  
AUDIT REPORT NO. LANL-AR-90-004  
JULY 9-13, 1990

Prepared By: Lloyd W. Schenpp Date: 7-30-90  
Audit Team Leader

Approved By: John L. Day Date: 7/31/90  
QAS Verification Coordinator

Approved By: Henry Paul Jones Date: 8/2/90  
QAHL

## LANL YMP AUDIT REPORT

AUDIT NO. LANL-AR-90-004

### EXECUTIVE SUMMARY

#### AUDIT SCOPE:

The Audit evaluated the effectiveness of implementation of LANL Quality Assurance Program Plan (QAPP) requirements in Criteria 5 (Instructions, Procedures, and Drawings), Criteria 6 (Document Control), Criteria 13 (Handling, Storage, and Shipping), and Criteria 17 (Records).

#### AUDIT RESULTS:

Four observations and ten Deficiency Reports were identified during the audit. Three of the observations were comments made about existing procedures and how they might be improved. The fourth observation related to storage of record packages. Of the Deficiency Reports, six were related to Criteria 17, and two each were related to Criteria 5 and 6.

#### CONCLUSIONS:

Based on the documentation reviewed during the course of this audit, Criteria 5, 6, and 13 are being implemented satisfactorily, although two minor deficiencies were issued in Criteria 5 and 6. Criteria 17 had six Deficiency Reports issued, and work needs to be done before it can be rated as acceptable.

## 1.0 INTRODUCTION

The audit was conducted for all LANL groups in Los Alamos, New Mexico, who are performing activities affecting quality on the Yucca Mountain Project.

## 2.0 INDIVIDUALS CONTACTED

- Kirsten Brackhahn, EES-13
- Kathy Campbell, A-1
- Barbara Carlos, EES-1
- Chris Chavez, LATA
- Mike Clevenger, MEE-9
- John Day, LATA
- Ken Eggert, EES-5
- Ed Essington, EES-15
- June Fabryka-Martin, INC-7
- Gabriela Gainer, LATA
- Betty Gutierrez, LATA
- Larry Hersman, LS-2
- Terry Morgan, INC-7
- Brent Newman, EES-15
- Henry Nunes, EES-13
- Ned Patera, INC-DO
- Jane Poths, INC-7
- Bruce Robinson, EES-4
- Pamela Rogers, INC-7
- Sue Sebring, MAT-3
- Inez Triay, INC-11

## 3.0 AUDIT TEAM MEMBERS

- Lloyd Schempp, Audit Team Leader
- Mike Clevenger, Auditor-in-Training
- Gabriela Gainer, Auditor
- Rich Morley, Auditor
- Dan Simundson, Auditor
- Donna Williams, Auditor

## 4.0 AUDIT SCOPE

The audit evaluated the effectiveness of implementation of LANL Quality Assurance Program Plan (QAPP) requirements in Criteria 5 (Instructions, Procedures, and Drawings), Criteria 6 (Document Control), Criteria 13 (Handling, Storage, and Shipping), and Criteria 17 (Records).

## 5.0 OBSERVATIONS

TWS-QAS-QP-5.1, R3: The procedure refers to the form in procedure TWS-QAS-QP-03.2, R0, for review. Because the form is not being filled out properly, it may need to be changed or guidance on how to fill out the form is needed in procedure 5.1.

TWS-QAS-QP-5.2, R2: The procedure provides no guidance on transmitting the completed records packages to the Records Processing Center.

TWS-QAS-QP-6.1, R1: The procedure states in section 4.1 that the QAPP will have a program index. The index was not in any of the controlled manuals that were reviewed, and no change request was issued to delete the requirement.

TWS-QAS-QP-17.3, R0: Group EES-15 was storing record package travelers in a folder separate from the record. It is felt that the record package traveler should be stored with the contents of that package.

## 6.0 DEFICIENCIES

Ten deficiencies were identified during the audit. The Deficiency Report numbers and a brief description of each deficiency are given below:

- |              |  |
|--------------|--|
| DR-LANL-0041 | Record packages did not contain the cover memo for return of review comments.  |
| DR-LANL-0042 | Project records in EES-13's resident file were stored in file shelves that do not comply with storage requirements.                                      |
| DR-LANL-0043 | The EES-13 resident file was left unlocked and unattended.   |
| DR-LANL-0044 | The INC-7/11 resident file was not using the "out-card" system to remove records.  |
| DR-LANL-0045 | Manual #008 contained QAPP pages Rev. 4.3 that should have been Rev. 4.4, and the Administrative Procedures in the manual should also have been removed. |

- DR-LANL-0046            Manuals #005 and #015 contained obsolete material that was not marked "obsolete." Corrections to these manuals were made during the audit.
- DR-LANL-0047            Mandatory comments were marked as accepted on review of TWS-QAS-QP-1.1, R2, but were not incorporated into the procedure, and the resolution of the mandatory comments was not documented on the review sheet. This was corrected during the audit by a letter to file as these were considered to be editorial comments.
- DR-LANL-0048            In record package TWS-EES-13-05-90-009, the revision number was corrected on memo TWS-EES-13-02-90-042, but the correction was not dated. Also, the revisions on the review comment sheets were corrected without being dated and some were not initialed.
- DR-LANL-0049            Record package TWS-EES-13-05-90-009 contained review sheets that were marked review of Rev. 1, but memo TWS-EES-13-02-90-042 stated the review was to Rev. 2.
- DR-LANL-0050            In the review of TWS-EES-13-05-90-009, the review comments sheets dated 3/09/90 have blank lines.

## 7.0 AREAS OF ACCEPTABILITY

Based on the documentation reviewed during the course of this audit, Criteria 5, 6, and 13 are being implemented satisfactorily, although two minor deficiencies were issued in Criteria 5 and 6.

Criteria 17 had six Deficiency Reports issued, and work needs to be done in this area before it can be rated as acceptable.

#### 8.0 AUDIT MEETINGS

A preaudit meeting was held on July 9, 1990, at 9:30 A.M. at the Mesa School Complex to discuss the purpose, scope, and criteria of the audit.

A postaudit meeting was held on July 13, 1990, at 1:15 P.M. at the Mesa School Complex to present the findings and results of the audit.

The Audit Attendee Record for these meetings is attached as part of this report.

#### 9.0 REQUIRED ACTION

Copies of Deficiency Reports LANL-0041 through LANL-0050 will be forwarded under separate cover memo to the responsible individuals for action, pursuant to TWS-QAS-QP-15.2.

#### 10.0 ATTACHMENTS

The Audit Attendee Record for the preaudit and postaudit meetings is listed as Attachment 1 to this report.





LOS ALAMOS NATIONAL LABORATORY

YUCCA MOUNTAIN PROJECT

AUDIT REPORT NO. LANL-AR-90-001

JUNE 4-6, 1990

Prepared By: John L. Day  
Audit Team Leader

Date: 8/17/90

Approved By: John L. Day  
QAS Verification Coordinator

Date: 8/17/90

Approved By: DP James  
QAPL

Date: 8/17/90

LOS ALAMOS NATIONAL LABORATORY  
YUCCA MOUNTAIN PROJECT  
AUDIT REPORT NO. LANL-AR-90-003  
JUNE 25-29, 1990

Prepared By: John L. Day Date: 8/17/90  
Audit Team Leader

Approved By: John L. Day Date: 8/17/90  
QAS Verification Coordinator

Approved By: HPH Ames Date: 8/17/90  
QAPL

LANL YMP AUDIT REPORT

AUDIT NO. LANL-AR-90-003

EXECUTIVE SUMMARY

AUDIT SCOPE:

This audit was performed to evaluate the effectiveness of implementation of LANL QAPP requirements by the LANL groups in Los Alamos, New Mexico, in the following QAPP criteria:

- 3 - Scientific Investigation Control and Design Control
- 4 - Procurement Document Control
- 7 - Control of Purchased Items and Services
- 17 - Records

AUDIT RESULTS:

There were thirty three Deficiency Reports and eleven observations identified during this audit. Of the deficiencies, two were in criterion 2, thirteen were in criterion 3, seven were in criterion 4, one was in criterion 12, and ten were in criterion 17. The observations addressed notebook entries, timely submittal of records to the RPC, unnecessary submittal of procurement documents to the QAS, quality of records in files, no guidance for making changes to TIPs, inconsistency in the forms used to document receiving reports, and inconsistent information on procurement documents.

CONCLUSIONS:

Although none of the deficiencies or observations identified during this audit are significant in nature, the quantities identified indicate a lack of attention to procedural details by most LANL YMP personnel performing quality affecting activities. Steps should be taken to ensure that all personnel are very knowledgeable of and comply with procedural requirements for activities affecting quality that they perform.

## 1.0 INTRODUCTION

This audit was conducted of the LANL EES-13 group in Las Vegas.

## 2.0 INDIVIDUALS CONTACTED

The following individuals were contacted during the audit:

Kay Birdsell, EES-5  
Stephen Bolivar, EES-1  
Kathy Campbell, A-1  
Julie Canepa, EES-13  
Mike Clevenger, MEE-9  
Clarence Duffy, INC-7  
Michael Ebinger, EES-15  
Edward Essington, EES-15  
June Fabryka-Martin, INC-7  
Larry Hersman, LS-2  
David Hobart, INC-11  
Marcia Jones, EES-1  
Schon Levy, EES-1  
Arend Meijer, INC-7  
Terry Morgan, INC-7  
Henry Nunes, EES-13  
Martin Ott, INC-11  
Phillip Palmer, INC-11  
Jane Poths, INC-7  
Bruce Robinson, EES-4  
Pamela Rogers, INC-7  
Sue Sebring, MAT-3  
Everett Springer, EES-15  
Ines Triay, INC-11  
David Vaniman, EES-1  
Rachael Vigil, EES-13  
Karen West, EES-13  
George Zyvoloski, EES-5

## 3.0 AUDIT TEAM MEMBERS

The following were audit team members:

J. L. Day, Audit Team Leader  
L. W. Schempp, Auditor  
G. M. Gainer, Auditor  
S. L. Bolivar, Auditor  
T. L. Morgan, Auditor  
R. A. Morley, Auditor

D. L. Williams, Auditor  
M. E. Gutierrez, Auditor-in-Training

#### 4.0 AUDIT SCOPE

This audit was performed to evaluate the effectiveness of implementation of LANL QAPP requirements by the LANL groups in Los Alamos, New Mexico, in the following QAPP criteria:

- 3 - Scientific Investigation Control and Design Control
- 4 - Procurement Document Control
- 7 - Control of Purchased Items and Services
- 17 - Records

#### 5.0 OBSERVATIONS

Observation 1: Several people who order procurements, or who are involved in procurements, do not pay attention to detail. Minor errors were found in every PR examined (e.g., PR H6190 has QA = NA, therefore this PR should not have been in the procurement files). Some PRs do not have the "date requested" block filled (e.g., 8461Y, 8499Y). The QA Level Assignment check list is not always signed (e.g., PR H6177, PR H6178). When multiple items are ordered, the items are not individually checked (e.g., for PR H6178, 23 items were ordered). Either 19 or 20 items arrived but there is no mention of the missing items. The package for PR 8485Y has three original QA Level Checklists, all dated the same, all originals, yet all different. All of the above are for "completed" PR records packages. This suggests a refresher training course is needed that stresses the duties and particulars required to comply with TWS-QAS-QP-04.1.

Observation 2: EES-13 employs a Resident File Custodian (RFC) who was recently hired from an employment agency. Several PR record packages were complete but have not been submitted to the Records Processing Center. Submittal of these packages is usually the responsibility of the RFC. Either the above person is not trained or not aware of these duties. Possibly this is not the RFC responsibility (the QAPL was unavailable for interview). If the RFC is temporary, then it is possible that this person will leave before the position's holder can fully understand the way YMP work is conducted. If this person is long term, then this observation does not apply.

Observation 3: In some notebooks (e.g., TWS-INC11-6/88-6, TWS-INC11-5-89-28) - would be beneficial to state that the following work R&D and that the header information, listed in the front of the notebook, applies. These notebooks are well written; stating the above, however, may help future examiners identify the work involved.

Observation 4: It would be useful to list reviews in the front of the notebooks. Most notebooks have this feature, although, TWS-INC7-8/88-07 does not. This review list is not required but is good practice. It also would be useful to enter dates and page numbers when notebooks are copied.

Observation 5: One notebook, TWS-INC-7-04-90-01, was missing some initial entry header information. PIs should be more attentive to detail.

Observation 6: Section 7.1.1 requires that a copy of the procurement documents be sent to the QAS. I believe this is an over requirement because it serves no purpose.

Observation 7: The statement in the paper "Preliminary Integrated Calculation of Radionuclide Cation and Anion Transport at Y. M. Using a Geochemical Model" is not in strict conformance to required statement in QP-03.2. The paper's statement may be considered vague.

Observation 8: There should be a table of contents for all attachments at the front of a notebook.

Observation 9: Copies of many documents in the files are of poor quality.

Observation 10: Updating of TIPs, replacing pages of the document with other pages, has no method to assure changes are made. Replacement pages are not identified as being different from the originals.

Observation 11: Written comments made on some documents are lost when they are photocopied.

Observation 12: Issuance of a document (Study Plan) as a Revision 0 by the Project Office has Revision 2 documents throughout the document.

Observation 13: There appears to be an unusual number of "Best Available Copies" in the files. One package of 49 pages had 28 that were marked "best available copy."

Observation 14: Purchasing Documents: Receiving Inspection Reports contain item identifications that are incomplete or different than those identified on the Purchase Request. RIRs used to accept the product.

Observation 15: Purchasing Documents: Several different methods of receiving reports are used, and they are not consistent with each other.

Observation 16: Purchasing Documents: Part ordered had one number on the Purchase Request. The Purchase Order had been changed with liquid paper and typed with a different number, and the Receiving Report had a different number for the part. Three different pieces of documentation for this PR had three different part numbers.

## 6.0 DEFICIENCIES

LANL-0057 REQUIREMENT: TWS-QAS-QP-12.1, R4 section 6.7, states, in part, "If the instrument was out of tolerance before calibration, the QAS returns a copy of the M&TE record to the PI....the PI must prepare a deficiency report...."

DEFICIENCY: Mettler balance PN 645140 was found to be out of the specified tolerance when recalibrated on 7/5/90 and no deficiency report was issued.

LANL-0058 REQUIREMENT: TWS-QAS-QP-03.5, R0 section 6.1, 6.2, and 6.3 state, in part, "notebook pages must be consecutively numbered"....experimenter signs and dates the entries...."entries are made in ink...."

DEFICIENCY: Notebook TWS-A-1-11/89-23 contain an attachment that was not consecutively numbered, was not signed and dated, and was written in pencil.

LANL-0059 REQUIREMENT: TWS-QAS-QP-03.5, R0 section 6.1, states, in part, "loose-leaf pages must be consecutively numbered...."

DEFICIENCY: Loose-leaf notebook TWS-HSE12-2/87-7 is a collection of attachments referenced in other notebooks. Pages of the attachments are not numbered.

LANL-0060 REQUIREMENT: TWS-QAS-QP-17.3, R0, section 6.3.3, states, in part, "LANL personnel authorized to authenticate records are listed on an authentication list...."

DEFICIENCY: An authentication list was not available in the EES-13 resident file.

LANL-0061 REQUIREMENT: TWS-QAS-QP-17.3, R0 section 6.3.2 states, in part, "records must have a WBS number and QA designation...."

DEFICIENCY: The following memos in the EES-13 resident file do not have the WBS number or QA designation:

TWS-N5-04-89-138  
TWS-N5-03-89-046  
TWS-N5-02-89-031  
TWS-N5-02-89-37  
TWS-N5-02-89-38  
TWS-N5-02-89-39

LANL-0062 REQUIREMENT: TWS-QAS-QP-04.1, R2 section 7.1.7 states, in part, "completed procurement records package...are sent to the RPC...."

DEFICIENCY: Completed records packages from EES-13 procurement files have not been sent to the RPC.

LANL-0063 REQUIREMENT: TWS-QAS-QP-04.1, R2 section 6.11.2 states, in part, "The requestor signs and initials and dates the receiving report...."

DEFICIENCY: EES-13 receiving reports from PRs H6178, 8486, H6210 and H6226 were not signed. The receiving report for PR 8476Y was not found.

LANL-0064 REQUIREMENT: TWS-QAS-QP-03.5, R0 section 6.2 states, in part, "The experimenter notes daily or as appropriate: Activity objective...."

DEFICIENCY: The following notebooks did not contain activity objective descriptions or other R&D initial entry information: Siderophore Notebooks VIII, X, XI, and IX.

LANL-0065 REQUIREMENT: TWS-QAS-QP-04.1, R2 section 7.1.7 states, in part, "The completed procurement records package, including receiving or delivery report or acceptance of procured service documentation: and... are sent to the RPC, where it becomes part ...."

DEFICIENCY: Records package TWS-EES-5-4-90-09, dated 4/6/90 for PR 0482, did not contain a receiving inspection report for the PR. The PR receiving inspection report attached to this package was for PR D0510.

LANL-0066 REQUIREMENT: TWS-QAS-QP-4.1, R2 section 7.1.5 states, in part, "The requester checks each order of items received to ascertain correctness...The requestor completes as necessary, signs, and dates...."

DEFICIENCY: The Receiving Inspection Report, filed at the RPC and Resident Files for purchase request 0495 was incomplete and did not have acceptance or rejection blocks checked.

LANL-0067 REQUIREMENT: QP-03.2, R0, section 2.0, states, in part, that the "procedure applies to the preparation and review of TIPs ...."

DEFICIENCY: EES-13 staff continued to use an obsolete procedure, QP-07, R2, rather than the current procedure, QP-03.2,R0. An example is Publications Traveler from QP-07, R2 for Milestone T427 (TWS-LS2-04-89-02), signed by the EES-13 editor on 1/17/89 and TPO on 10/30/89. QP-07, R2 was superceded by QP-03.2, R0 on 5/9/89. A new traveler should have been started at that point to track the remaining steps in the new procedure.

LANL-0068 REQUIREMENT: QP-02.7, R0, section 6.2, states, in part, "The YMP supervisor ensure that a YMP employee ... receives the required training ... in the procedure that governs a YMP activity that affects quality before assigning the YMP employee to perform the activity...."

DEFICIENCY: EES-13 editor signed publications traveler for TWS-LS2-04-89-02 without being trained to the current procedure. See related DR on this item.

LANL-0069 REQUIREMENT: QP-03.3, R0, section 5.2 states, in part, "The N-5 staff ensures that the credentials of authors and reviewers are on file."

DEFICIENCY: According to the QAPL, EES-13 is not currently retaining the credentials of the authors and reviewers of study plans.

LANL-0070 REQUIREMENT: QP-03.5,R0, section 6.5.1 states, in part, "The experimenter records... the identification number of the DP to be followed...."

DEFICIENCY: Field books and logbooks do not reference the DPs being followed for entries. While the notebooks were started before the current requirements were implemented, current entries should meet current requirements. Field books TWS-ESS-1-11/82-3 and TWS-EES-1-1/85-7 failed to reference DP for sampling.

LANL-0071 REQUIREMENT: QP-03.5,R0, section 6.5.1 states, in part, "The experimenter records... the identification number of the DP to be followed...."

DEFICIENCY: Field books and logbooks do not reference the DPs being followed for entries. While the notebooks were started before the current requirements were implemented, current entries should meet current requirements. TWS-HSE12-1/88-11 Sample logbook failed to reference DP-307 (corrected in audit).

LANL-0072 REQUIREMENT: Scope statement of QP-03.3, R0 states that the QP "applies to all LANL personnel and LANL subcontractors who conduct scientific work, experiments,

or investigations as part of this project." This requires that all technical staff be trained to this QP before performing technical work.

DEFICIENCY: It appears that all staff are not trained to this procedure. This is probably a deficiency in the scope of the procedure.

LANL-0073 REQUIREMENT: QP-03.3, section 5.2, designates LANL Group N-5 (now EES-13) as responsible for coordinating "the development, writing, and review of SCP study plans."

DEFICIENCY: EES-13 staff failed to implement QP-03.3, R0 for study plans that were in progress at the time the procedure became effective. New travelers should have been started as new work on the study plans began. The study plan coordinator stated that this would not occur until the plans were returned to DOE for the next review iteration. However, the new travelers should have been started when Project Office comments were received (step 18 on traveler). Note that the current procedure has been effective for 13 months, which is a more than adequate transition period. Also note that this is not reworking old material, but continuing in-process work with the current requirements. Authors should be working to QP-03.3, R0 when they are resolving these comments, and their progress should be tracked on the appropriate travelers.

Note that new study plans are being properly tracked, and old study plans completed prior to QP-03.3 implementation are not affected.

LANL-0074 REQUIREMENT: QP-02.7, R0, section 6.2, states, in part, "The YMP supervisor ensure that a YMP employee ... receives the required training ... in the procedure that governs a YMP activity that affects quality before assigning the YMP employee to perform the activity ..."

DEFICIENCY: The author of study plans 8.3.1.3.6.1 and 8.3.1.3.6.2 has not been trained to QP-03.3, R0. Note that the plan was originally prepared before QP-03.3 implementation; comments however, are currently being resolved under QP-03.3.

LANL-0075 REQUIREMENT: QP-17.3, R0, section 6.2 states, "All Project records are lifetime records. Project records shall be protected.... Dual storage at widely separated locations (Resident file and RPC) shall be satisfactory for these purposes."

DEFICIENCY: Training records for QP-03.3, R0 for the author of study plan SCP 8.3.1.3.1 were not in the EES-15 resident file. The QAS records had a copy; dual storage however, was not maintained.

LANL-0076 REQUIREMENT: QP-03.5, R0, section 6.9.1 states, in part, "... all notebooks ... must be independently reviewed when they are completed.... The reviewer states that the notebook ... has been reviewed and understood and signs and dates the final entry reviewed.... The notebook is then a completed record for the Project."

Section 7.1 also requires that notebooks "are retained in the group Resident File until copies are submitted to the Records Processing Center."

DEFICIENCY: Completed notebook TWS-EES-5-7/87-34 shows no evidence that it has

been reviewed (although the last entry said it would be) or that it has been submitted to the RPC (although it appears to have an RPC stamp). It is unclear if the problem lies in the RPC files or with the resident file. According to the RPC staff, this problem may extend to other records from the same time period.

LANL-0077 REQUIREMENT: QAPP, section 3.1.3, states, in part, "The results of the technical review and the resolutions of any comments by the reviewers shall be documented and shall become part of the QA records as prescribed in the QP for document review."

DEFICIENCY: QP-3.3, R0 is vague on the responsibilities of records keeping; it is not clear who is responsible for what records and what records must be kept. As a result, staff interviewed were unclear as to their responsibilities and assumed other staff were keeping some of the records. The QP is deficient in not listing all the records that must be kept of the review cycle. There are no positive controls in consistent actual use to make sure that all critical records are maintained.

LANL-0078 REQUIREMENT: TWS-QAS-QP-04.1, R2 section 6.3 states, in part, "The QAL reviews and completes the QA level Assignment... and section 7.1.1 and 7.1.2 state, in part, "The RFC sends a copy of the procurement documents to the QAS...."

DEFICIENCY: Four EES-5 procurements were not initially reviewed by the QAL. Memo TWS-EES-5-6-90-2, dated 6/8/90, was issued to change the QA level assignments, but copies were not sent to MAT and the PR's were not corrected. The procurements are as follows:

J43721 dated 3/19/90  
D0494 dated 3/13/90  
J3692 dated 1/25/90  
J3691 dated 1/25/90

Three EES-5 procurements were not dated by the QAL and none are marked "YMP." The procurements are as follows:

F7533dated 6/28/89  
F7541dated 7/25/89  
J3677dated 11/20/89

No procurement documentation has been sent to the QAS.

LANL-0079 REQUIREMENT: TWS-QAS-QP-17.3, R0 section 6.4.2 states, in part, "The QAL and RFC implement a record identification system that is specific to the Project...."

DEFICIENCY: The following TIPs which originated from group EES-13, were not assigned a unique identifier:

"Assessment of Radionuclide Retardation"

"Geochemistry of the Yucca Mountain Site: An Overview of the Approach to Characterization"

LANL-0080 REQUIREMENT: TWS-QAS-QP-03.2, R0, section 7.0 states, in part, "The following records will be generated through Implementation of this procedure: ...."

DEFICIENCY: Information is missing from several TIP records packages.

LANL-0081 REQUIREMENT: TWS-QAS-QP-03.2, R0 section 5.2 states, in part, "The TPO resolves questions over the resolution of review comments...."

DEFICIENCY: The following TIPs contain no approval signatures by the TPO:

TWS-INC7-7-89-10 dated 8/21/89  
TWS-INC7-7-89-15 dated 10/17/89  
TWS-INC7-9-89-1 dated 11/20/89  
TWS-INC11-9-89-5 dated 12/22/89  
TWS-EES-1-8-89-9 dated 12/11/89

LANL-0082 REQUIREMENT: TWS-QAS-QP-03.2, R0 section 7.0 states, in part, "The following records will be generated through implementation of this procedure...."

DEFICIENCY: The following TIPs have been published but not sent to the RPC as completed packages:

TWS-INC7-7-89-11, final signature date 8/25/89  
TWS-INC7-7-89-15, published, but no final signature  
TWS-INC11-7-89-17, published

LANL-0083 REQUIREMENT: TWS-QAS-QP-04.2, R2 Section 5.0 states, in part, "The requestor evaluates the service for acceptance within three months to one year of the initiation of work...."

DEFICIENCY: The following PRs did not have the acceptance letter: PR 1818X Stanford (dated 06/27/88) and PR Y8086 Lawrence Berkeley Livermore dated 08/25/85.

LANL-0084 REQUIREMENT: TWS-QAS-QP-04.2, R2 Section 6.1 states, in part, "The requestor documents acceptance of the results of a procured service by checking the appropriate 'accept' box on the acceptance form (Attachment 1)...."

DEFICIENCY: The following PRs did not have this form in file: PR 1818X Stanford (dated 06/27/88) and PR Y8086 Lawrence Berkeley Livermore dated 08/25/85.

LANL-0085 REQUIREMENT: TWS-QAS-QP-4.1, R2 Section 6.2 states, in part, "The QAL reviews and completes the QA Level Assignment and Commercial Grade Checklist, signs the PR and marks it 'QA Level III' and 'YMP'."

DEFICIENCY: TWS-INC7-10-89-2 dated 10/04/89 Record Package transmitting PRs PR 3091Z dated 02/13/89 and 3092Z dated 02/13/89 are marked QA level III on the PR, but the QA Level Checklist is marked QA level I. The QAL signature line is also illegible.

LANL-0086 REQUIREMENT: TWS-QAS-QP-17.3, R0, Section 6.4.5 states, in part, "Record

packages are submitted within seven working days after notice by the originator that the record package is complete...."

DEFICIENCY: TWS-EES-1-11-89-13 Record Package of Milestone T433 'Quantitative X-ray Deffraction Analyses of Samples Used for Sorption Studies by the Isotope and Nuclear Chemistry Division, LANL' published date was September 1989 but the record package was sent out on November 7, 1989.

LANL-0087 REQUIREMENT: TWS-QAS-QP-17.3, R0, Section 6.4.2 states, in part, "The QAL and RFC implement a record identification system that is specific to the Project and each LANL group... The system must uniquely identify each Project record as shown in the following example: TWS-EES-1... where the second element uniquely identifies the group originating the record...."

DEFICIENCY: TWS-EES-1-5-90-2 dated 5/8/90 "Review of EES-5 procurements and Voiding of EES-5 TWS numbers" was originated in EES-1 for procurements that were originated in EES-5.

LANL-0088 REQUIREMENT: TWS-QAS-QP-17.3, R0 section 6.4.3 states, in part, "table of contents (each segment of a record package is listed separately by identifying the date, ...."

DEFICIENCY: The following records packages did not list items separately:

TWS-INC7-06-90-07, dated 6/18/90  
TWS-INC7-10-89-2, dated 10/04/89

LANL-0089 REQUIREMENT: TWS-QAS-QP-17.3, R0 section 6.4.5 states, in part, "...Record packages are submitted within seven days ...."

DEFICIENCY: Record Package TWS-ESS-5/1-89-07 dated 8/30/89 was signed 8/31/89 but received by the RPC on 10/23/89.

## 7.0 AREAS OF ACCEPTABILITY

Although deficiencies were noted in criterion 2, none of these are significant in nature. The requirements in this criterion are being implemented by the LANL YMP staff in an acceptable manner. Much more attention to details in the procedures that implement the requirements in criteria 3, 4, and 17 is required to ensure that activities in these criteria are performed effectively. Steps should be taken to ensure that LANL YMP personnel are very knowledgeable of and comply with all procedural requirements that govern the quality affecting activities they perform.

## 8.0 AUDIT MEETINGS

A preaudit meeting was held on June 25, 1990, at 8:30 a.m. to discuss the scope of the audit, to arrange for contacts between the audit team and audited organization, and to designate locations for the audit activities.

A postaudit meeting was held on June 29, 1990, at 9:15 a.m. to discuss the results of the audit, including observations and deficiencies noted.

Lists of attendees of the preaudit and postaudit meetings are filed in the QA records package for this audit.

## **9.0 REQUIRED ACTION**

It is recommended that the observations listed in Section 5.0 be addressed by the responsible LANL YMP staff to determine whether or not action should be taken on each one. The Deficiency Reports listed in Section 6.0 will be forwarded under a separate cover memorandum to the responsible individual(s) for a required action pursuant to TWS-QAS-QP-15.2.

# Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

**THIS IS A VMP  
ACTION ITEM**  
NO. NNI-1990-3680

I-305739  
CL

WBS 1.2.9.3  
QA

September 4, 1990

TWS-EES-13-09-90-030

Mr. Donald Horton  
Yucca Mountain Project Office  
U. S. Department of Energy  
P. O. Box 98608  
Las Vegas, NV 89193-8608

*Horton*  
*Diya Johnson*  
*Law*  
*Wilson*  
*Artemus - AC*  
*Bertz*  
*Winters*  
*Robison*  
*Bohkop*  
*Blanchard*  
*Peterson*

Dear Mr. Horton:

**SUBJECT: REVISED RESPONSE, STANDARD DEFICIENCY REPORT NO. 513,  
ACTION ITEM NO. NNI-1990-3680**

REC'D IN VMP  
9-10-90

Reference: Letter, Herbst to Horton, dated August 17, 1990

Discussions with your QA staff concerning our revised response to the referenced standard deficiency report revealed the response was incomplete. Therefore, we wish to add the following to the revised response for your review.

**Block 16 - Cause of Condition & Corrective Action to Prevent Recurrence**

Additional response to state: Cause - These are the initial reports within our revised audit system. The delay in issuance occurred because the verification staff needed additional time to correlate the completed checklists to the final report, and still plan and conduct additional audits. Survey reports were delayed for similar reasons. The verification staff is tasked with both audits and surveys. Survey reports were delayed in deference to completing the audit reports.

Corrective Action to Prevent Recurrence: For audits, none is required--the subject audit reports, LANL No. 90-01, LANL No. 90-02, and LANL No. 90-03, are completed and attached for your review. LANL audit report No. 90-04 was issued within a 30 calendar day time period as recommended. For surveys, the corrective action is to complete the Survey Reports Nos. SR-04 and SR-05. Steps to prevent recurrence have been taken with the issue of internal memo dated July 10, 1990, which directed the Verification Coordinator to complete and submit survey reports to the LANL QAPL within 15 working days of completion of the survey.

Block 17 - Effective date August 17, 1990, for audits  
Effective date September 14, 1990, for surveys

If you have any questions, please contact Henry Nunes at (FTS) 843-8039 for information regarding this standard deficiency report response.

Sincerely,  


Richard J. Herbst

HPN/kb

Mr. Donald Horton  
TWS-EES-13-09-90-030  
September 4, 1990  
Page 2

Cy:

S. L. Bolivar, EES-1, MS D462  
K. E. Brackhahn, EES-13, MS J521  
D. E. Broxton, EES-1, MS D462  
K. Campbell, A-1, MS F600  
J. A. Canepa, EES-13, MS J521  
B. A. Carlos, EES-1, MS D462  
M. J. Clevenger, EES-15, MS J495  
E. M. Cole, LATA, MS M321  
G. P. Cort, EES-13, MS J521  
B. M. Crowe, EES-13/LV, MS J900/527  
J. L. Day, LATA, MS M321  
C. J. Duffy, INC-7, MS J514  
M. H. Ebinger, EES-15, MS J495  
K. G. Eggert, EES-5, MS F665  
C. D. Harrington, EES-1, MS D462  
L. E. Hersman, LS-2, MS M880  
D. E. Hobart, INC-11, MS G739  
H. N. Kalia, EES-1/LV, MS J900/527  
S. S. Levy, EES-1, MS D462  
A. Meijer, INC-7, MS J514  
T. L. Morgan, INC-7, MS J519  
D. E. Morris, INC-11, MS G739  
R. A. Morley, EES-1/LV, MS J900/527  
J. T. Fabryka-Martin, INC-7, MS J514  
H. P. Nunes, EES-13, MS J521  
E. S. Patera, INC-DO, MS J514  
B. A. Robinson, EES-4, MS D443  
R. S. Rundberg, INC-11, MS J514  
L. W. Schempp, MEE-9, MS J521  
E. P. Springer, EES-13, MS J521  
S. R. Sebring, MAT-3, MS P274  
D. N. Simundson, LATA, MS M321  
K. W. Thomas, INC-11, MS J514  
I. R. Triay, INC-11, MS J514  
D. T. Vaniman, EES-1, MS D462  
K. A. West, EES-13, MS J521  
D. L. Williams, LATA, MS M321  
RPC File (2), LATA, MS M321  
TWS-EES-13 File, MS J521  
QAS File, LATA, MS M321  
CRM-4, MS A150