

YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION

QUALITY ASSURANCE SURVEILLANCE REPORT

OF

LAWRENCE LIVERMORE NATIONAL LABORATORY

SURVEILLANCE NUMBER YMP-SR-91-013

CONDUCTED APRIL 8 THROUGH 10, 1991

ACTIVITIES SURVEILLED:

TRAINING, PROCUREMENT DOCUMENT CONTROL,
CONTROL OF PURCHASED ITEMS AND SERVICES, AND AUDITS

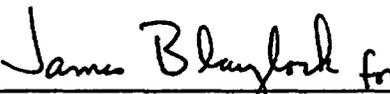
Prepared by:



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Quality Assurance Engineer
Yucca Mountain Quality Assurance Division

Date: 4-30-91

Approved by:



Donald G. Horton, Director
Yucca Mountain Quality Assurance Division

Date: 5/2/91

1.0 INTRODUCTION

This report contains the results of Yucca Mountain Quality Assurance Division (YMQAD) Surveillance No. YMP-SR-91-013 of Lawrence Livermore National Laboratory (LLNL), conducted at Livermore, California, from April 8 through 10, 1991, to verify compliance and effective implementation of approved LLNL implementing procedures.

2.0 PURPOSE AND SCOPE

The purpose of this surveillance was to evaluate the effectiveness of the implementation of certain LLNL quality procedures associated with selected criteria. The scope of the surveillance included the following criteria and their attendant procedures:

II. Quality Assurance (QA) Program

033-YMP-QP 2.9, Rev. 2, "Indoctrination and Training"
033-YMP-QP 2.10, Rev. 2, "Qualification of Personnel"
033-YMP-QP 2.11, Rev. 0, "Qualification and Certification"

IV. Procurement Document Control

033-YMP-QP 4.0, Rev. 1, "Procurement Control and Documentation"
033-YMP-QP 4.1, Rev. 1, "Preparation of Quality Assurance Requirements Specifications and Approval of Subcontractor QA Programs"

VII. Control of Purchased Items and Services

(Note: LLNL has combined Criterion IV and Criterion VII. There are no independent procedures for Criterion VII.)

XVIII. Audits

033-YMP-QA-18.0, Rev. 2, "Audits"
033-YMP-QA-18.1, Rev. 2, "Surveillances"
033-YMP-QA-18.2, Rev. 1, "Qualification of Quality Assurance Audit Personnel"

3.0 SURVEILLANCE PERSONNEL

The surveillance was conducted by the following personnel:

John S. Martin, Quality Assurance Engineer (Surveillance Team Leader),
Science Applications International Corporation (SAIC)/YMQAD
Richard L. Weeks, Quality Assurance Specialist Scientist II, SAIC
Robert B. Constable, U.S. Department of Energy (DOE)/YMQAD

In addition to the above personnel, there was one independent observer:

James T. Conway, U.S. Nuclear Regulatory Commission (NRC), QA Observer, Washington, DC

4.0 SUMMARY OF SURVEILLANCE RESULTS

The implementing procedures listed in Section 2.0 of this report were the source of questions used to conduct this surveillance. Checklists generated from these documents were used to determine compliance. The following results were obtained during the surveillance:

4.1 033-YMP-QP 2.9, Rev. 2, "Indoctrination and Training"

Training records of select individuals were reviewed to determine procedural compliance for indoctrination and training. The individual files reviewed were:

Baumgarten, K.
Comstock, P.
Dann, R.
Merrigan, J.
Hamati, R.
Podobnik, J.

All files were examined for appropriate subject matter as documented and approved by LLNL Technical Leaders and as outlined in the Training Matrix (i.e., that personnel were indoctrinated prior to the start of activities which were quality affecting and that training files were properly maintained and stored). Additionally, it was verified that the QA Manager had prepared appropriate material for indoctrination and training and that training was assessed through an annual management assessment, trend analysis, or audits/surveillances.

Review of training records, associated documentation, and interviews of personnel provided positive evidence of LLNL cognizance of procedural requirements and overall satisfactory implementation of indoctrination and training for the attributes observed.

4.2 033-YMP-QP 2.10, Rev. 2, "Qualification of Personnel"

Reviewed records of personnel listed in Section 4.1. These records were reviewed to verify the following:

1. Appropriate position descriptions and approvals existed.
2. Employee's resume contained required information.
3. Confirmatory documentation for education and experience was complete.

4. Contractor/Subcontractor releases were available.
5. Training was accomplished in the required time frame.
6. Certification accompanied by the required signatures had been completed.

All personnel files were found to be complete and acceptable in accordance with procedural guidelines.

4.3 033-YMP-QP 2.11, Rev. 0, "Qualification and Certification"

LLNL has not performed Non-Destructive Examinations (NDEs) as of the time of this surveillance, nor do they have any individuals certified to perform an NDE process.

4.4 033-YMP-QP 4.0, Rev. 1, "Procurement Control and Documentation"

Thirteen Purchase Requisitions (PRs) for commercial grade items (Nos. 38515, 7480/71, 7833/39, 7833/40, 9252/08, 9252/15, 9252/25, 9503/11, 9503/45, 9503/73, 9503/74, 9503/75, and 9523/93) were randomly selected for review to ascertain procedural compliance. Specifically, these PRs were reviewed to ensure that the appropriate procurement classification was made and that all applicable signatures and reviews had been accomplished. The Purchase Orders (POs) for these PRs were also examined. This examination encompassed ensuring that information contained on the PRs was correctly transferred to the POs. It must be noted that LLNL YMP does not let the POs as this function is performed by LLNL Central Procurement and it was felt that this area should be checked.

Three out of four Quality Affecting Procurement Packages (PO Nos. B156346, B156347, and B160242) which had been generated since September 1990, and one Quality Affecting Procurement Package (PO No. B077706) for which the PO had recently been completed, were also examined. These packages were examined for the following:

1. Scope of Work
2. Technical Requirements
3. Quality Assurance Requirements
4. Rights of Access
5. Spare Parts
6. Maintenance Contracts

7. Shipping Instructions
8. Appropriate Procurement Classification
9. Applicable Signatures and Reviews

All PRs and POs reviewed were found to be in compliance except for PO Nos. B156346, B156347, and B160242. For these POs, it was noted that procedural guidelines did not describe the letting of contracts for sole source supplier of services without the initiation of documented selection criteria or where a criterion is not applicable documenting this fact (see Section 8.0 for Corrective Action Request). During review it was determined that these POs were unique in nature as they were generated for sole source supplier of services and were let at the request of the Office of Civilian Radioactive Waste Management (OCRWM) and the Nuclear Energy Agency (NEA) for technical review activities to be accomplished in accordance with NEA procedures. Although LLNL let these contracts without full procedural guidance, the POs, as let, are acceptable to accomplish the technical reviews for which they were issued. In addition, it was noted that the procedure as now in effect did not clearly address interface requirements between LLNL YMP and LLNL Central Procurement. See Section 8.0 for this deficiency.

4.5 033-YMP-QP 4.1, Rev. 1, "Preparation of QA Requirements Specifications and Approval of Subcontractor QA Programs"

Subject procedure specifically provides requirements for the initiation of QA Requirements Specifications for utilization by subcontractors performing activities or providing services in support of the YMP. Four Quality Affecting Procurement Packages were examined (see Section 4.4 for POs). These packages were examined to verify that appropriate QA Requirements Specifications had been initiated and all required reviews and signatures were provided. This examination provided positive evidence that LLNL was in compliance with program requirements for PO B077706; however, POs B156346, B156347, and B160242 did not comply (see the deficiency as detailed in Section 4.4).

4.6 033-YMP-QP 18.0, Rev. 2, "Audits"

The Internal and External Audit Schedule (LLNL YMP FY 1991, Revision 1, dated March 7, 1991) was reviewed to verify procedural compliance for tasks to be audited, appropriate schedule, coverage of applicable criteria, and verification that subcontractors performing quality affecting work were included. During this review it was noted that the Audit schedule met procedural guidelines and LLNL had performed one Internal Audit (91-01) and one External Audit (91-11) to date.

Records Package Nos. LLYMP9101152 and LLYMP9101144 for Audits 91-01 and 91-11, respectively, were examined relative to the following:

1. Assigned Audit personnel were qualified.
2. Audit Plan issued prior to audit and contained appropriate information (i.e., scheduled dates, scope, task to be audited, specific requirements to be audited, organizations to be contacted and names of auditors).
3. Audit Report contained required information (i.e., audit number, scope, identification of members of task audited and of the audit team, effectivity statement and discussion of findings if applicable).
4. Applicable signatures and approvals.

All evidence examined was found to meet procedural prerequisites.

4.7 033-YMP-OP 18.1, Rev. 2, "Surveillances"

LLNL YMP Surveillance Schedule for FY 91, Revision 1, issued March 7, 1991, was reviewed to verify that the schedule identified YMP and subcontractor activities for which surveillances were planned.

In addition, reviewed surveillances S90-06 and S90-07 for compliance to procedural requirements. These two surveillances were thoroughly examined to ensure that checklists were properly prepared (i.e., assigned numbers, personnel conducting audit, activity to be observed, observation methods, acceptance criteria, reference to applicable procedures, provisions for recording objective evidence, and reference to measuring and test equipment). Final reports were examined for scope, identification of surveillance members, effectivity statement, and a brief summary of findings.

All reports and associated records were found to meet procedural requirements; however, there was one minor deficiency found dealing with checklists. This deficiency was corrected during the course of the surveillance and is explained in Section 8.0.

4.8 033-YMP-OP 18.2, Rev. 1, "Qualification of Quality Assurance Audit Personnel"

Documentation of qualification and training was reviewed of the following personnel:

QA Personnel

Baumgarten, K.
Hamiti, R.
Dann, R.

Technical Specialist

Harar, J.
Colmenares, C.
Sicherman, A.

The QA personnel files were examined to verify that Lead Auditors had been properly trained and examined in accordance with LLNL procedural guidelines (i.e., participated in at least five QA audits within three years with one of these being in the nuclear QA field within one year of certification, successful completion of an examination, letter certifying successful completion of the examination, Lead Auditor Qualification Worksheet, audit participation records, and the LLNL/YMP QA Managers yearly review where applicable).

Technical Specialist (TS) files were reviewed to verify that the QA Manager maintained TS training and audit participation records.

All documentation reviewed was found to meet procedural prerequisites.

5.0 PERSONNEL CONTACTED DURING THE COURSE OF THE SURVEILLANCE

James Blink, LLNL, Assistant Project Leader
Barbra Bryan, LLNL, Project Administrator
Perpetua Comstock, LLNL, Resource Manager
Robert Dann, LLNL, QA Project Manager
Darleen Good, LLNL, Training Coordinator
Barbra Larson, LLNL, Central Procurement
Raymond Hamati, LLNL, Quality Assurance Engineer
Faith Halstrom, LLNL, Central Procurement
Margaret McGee, LLNL, Central Procurement
James Merrigan, LLNL, Investigation Staff Support
Eloise Moffet, LLNL, Central Procurement
John Podobnik, LLNL, Resource Planning and Project Controls Manager
Dave Short, LLNL, Assistant Project Leader
Pat Van Lehn, LLNL, Calibration Coordinator

6.0 MEASURING AND TEST EQUIPMENT UTILIZED DURING THE SURVEILLANCE

No measuring and/or test equipment was used during the course of this surveillance.

7.0 SURVEILLANCE TEAM EVALUATION

It is the opinion of the Surveillance team that the LLNL QA Program as surveilled is being implemented effectively except for the areas as noted in Section 8.0 of this report. The new QA Manager has shown good interfacing and communication skills within the LLNL organization and with YMPO.

8.0 SYNOPSIS OF DEFICIENCIES

The following deficiencies were corrected during the course of this surveillance:

1. One Surveillance Report S90-06 was found to contain incomplete quality records (i.e., empty blanks on surveillance checklists). The empty blanks were N/A'd and the record was resubmitted to the Central Records Facility.
2. LLNL/YMP Qualified Suppliers List was found to be out-of-date and did not reflect current qualified suppliers. LLNL updated its LLNL YMP Qualified Suppliers List to show those suppliers who are qualified.

No further action is required as these items were corrected as described and are considered isolated in nature.

There was one Corrective Action Request (CAR) which was generated as a result of this surveillance and is as follows:

YM-91-042 LLNL Quality Procedure 033-YMP-QP 2.1, Revision 2, Paragraph 2.1.4.1, requires QPs to reflect LLNL QAPP requirements. During the course of this surveillance, two upper-tier QAPP requirements were found not to have been appropriately transcribed into LLNL procedure 033-YMP-QP 4.0, Revision 1. These deficiencies are (1) LLNL does not clearly establish or document the internal interfaces which exist between LLNL/YMP and LLNL Central Procurement for purchasing activities as required in LLNL QAPP 033-YMP-R 1, Revision 0, Paragraph 4.0; and (2) procedural guidelines do not describe, as required in LLNL QAPP 033-YMP-R 7, Revision 0, the sequence of events which take place in letting of contracts for sole source supplier of services without the initiation of documented selection criteria or where a criterion is not applicable documenting this fact. This CAR will be issued under a separate letter; however, an information copy will be included in this report.

9.0 RECOMMENDATIONS

This surveillance generated the following recommendation:

During the course of this surveillance it was ascertained that LLNL is in the process of revising Quality Procedure 033-YMP-QP 4.1. It is recommended that during this revision special attention be given to redefining the definitions for exempt items and commercial grade items. This recommendation is made based on review of numerous PRs, where the type of PR being generated was revised subsequent to the initiation, and through interviews with personnel which indicated confusion on the part of requesters relative to exempt and commercial grade items.

10.0 REQUIRED ACTIONS

No actions are required of LLNL as a result of issuance of this surveillance; however, Corrective Action Request (CAR) YM-91-042 was issued under separate letter and does require a response.

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

14CAR NO.: YM-91-042
DATE: 4/18/91
SHEET: 1 OF 2
QA
WBS No.: 1.2.9.3

CORRECTIVE ACTION REQUEST

1 Controlling Document LLNL QAPP		2 Related Report No. YMP-SR-91-013	
3 Responsible Organization LLNL QA		4 Discussed With R. Dann/D. Short	
10 Response Due 30 days from issuance	11 Responsibility for Corrective Action R. Dann/D. Short	12 Stop Work Order Y or N N	

5 Requirement:
LLNL Quality Procedure 033-YMP-QP 2.1, Revision 2, "Preparation, Approval, and Revision of Procedures, Requirements, Plans and the Quality Assurance Program Description," paragraph 2.1.4.1, states in part: "Personnel who prepare Quality Procedures are to assure that applicable requirements in the QAPP are implemented by procedures...."
LLNL QAPP 033-YMP-R 7, Revision 0, paragraph 1.1.3, "Procurement Methods," states in part: "Planning results in the documented identification of the methods to be used in procurement activities, the sequence of actions and milestones that indicate the completion of these activities, and the preparation of applicable procedures prior to the initiation of each (Con't)"

6 Adverse Condition:
Contrary to the above, LLNL Quality Procedure 033-YMP-QP 4.0, Revision 1, fails to address the following QAPP requirements:
1. YMP procedural guidelines do not describe the sequence of events which take place in the letting of contracts for sole source supplier of services without the initiation of documented selection criteria or where a criteria is not applicable documenting this fact as demonstrated in Purchase Orders No. B156346, B156347, and B160242.
2. YMP procedural guidelines do not clearly establish and document the internal interfaces which exist between LLNL-YMP and LLNL central procurement for purchasing activities.

7 Recommended Action(s):
Identify the remedial actions to be taken to correct the deficiencies noted in Block 6. Investigate the program, process, activities or documentation to determine the extent and depth of similar conditions to those listed on (Con't)

8 Initiator John S. Martin <i>[Signature]</i>	Date: <u>4-18-91</u>	9 Severity Level - 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/>	13 Approved By: OQA <i>[Signature]</i>	Date: <u>4-18-91</u>
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15 Verification of Corrective Action:

16 Corrective Action Completed and Accepted: QAR _____ Date _____	17 Closure Approved By: OQA _____
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RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

CAR NO.: YM-91-042
DATE: 4/18/91
SHEET: 2 OF 2

CORRECTIVE ACTION REQUEST
(continuation sheet)

5 Requirements (continued)

individual activity listed below. Planning provides for the integration of the following:

> Procurement document preparation,"

LLNL QAPP 033-YMP-R 1, Revision 0, "Organization," paragraph 4.0. states: "If more than one organization is involved in the execution of activities affecting quality, then the responsibility and authority of the ~~LLNL-QAPP~~ and each other organization is clearly established and documented."

7 Recommended Action(s) (continued)

the CAR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.