

JC/OBS RPT 91-S5

MAY 29 1991

- 1 -

Mr. Dwight E. Shelor, Acting Associate Director  
for Systems and Compliance  
Office of Civilian Radioactive Waste Management  
U. S. Department of Energy, RW 30  
Washington, D.C. 20585

Dear Mr. Shelor:

SUBJECT: OBSERVATION REPORT NO. 91-S5 ON SURVEILLANCE NO. YMP-SR-91-013  
OF THE LAWRENCE LIVERMORE NATIONAL LABORATORY QUALITY  
ASSURANCE PROGRAM

I am transmitting the U.S. Nuclear Regulatory Commission (NRC) Surveillance Observation Report No. 91-S5 for the U.S. Department of Energy (DOE)/Yucca Mountain Site Characterization Project Office (YMPO) Quality Assurance (QA) Surveillance No. YMP-SR-91-013 of the Lawrence Livermore National Laboratory (LLNL) QA programs conducted in Livermore, California, on April 8-10, 1991. A member of the NRC staff participated as an observer on this surveillance.

The NRC staff observed and evaluated the DOE/YMPO QA surveillance to gain confidence that DOE and LLNL are properly implementing the requirements of their QA program by assessing the effectiveness of the DOE/YMPO surveillance and determining the adequacy of the LLNL QA program in the areas surveilled. The staff's evaluation is based on direct observations of the surveillance team members, discussions with the surveillance team and LLNL staff, and reviews of pertinent QA records relating to procedural implementation.

The scope of the DOE/YMPO surveillance was limited to procedural implementation of activities related to training and qualification of personnel, procurement of items and services, and audits/surveillances. Assessment of technical adequacy was not made during the surveillance.

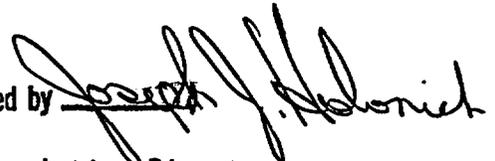
The staff observer found the DOE/YMPO surveillance of the LLNL QA program useful and effective. The surveillance team seemed well prepared and was familiar with the LLNL QA Plan and the relevant QA procedures being implemented. Their checklists for this surveillance were well prepared and utilized in determining the adequacy of procedural controls and status of procedural implementation of the LLNL QA program under Criteria 2, 4, 7, and 18 of the Code of Federal Regulations Title 10, Part 50, Appendix B.

The NRC staff agrees with the DOE/YMPO surveillance team's preliminary conclusion that the LLNL QA program provides adequate procedural controls for the criteria that were surveilled.

If you have any questions concerning this report, please contact James Conway of my staff at (301) FTS-492-0453.

Sincerely,

(Original Signed by



*JL*

John J. Linehan, Acting Director  
Repository Licensing and Quality Assurance Project Directorate  
Division of High-Level Waste Management  
Office of Nuclear Material Safety and Safeguards

Enclosure: As Stated

- cc: R. Loux, State of Nevada
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO
- P. Niedzielski-Eichner, Nye County, NV
- C. Thistlethwaite, Inyo County, CA

DISTRIBUTION

CNWRA	NMSS R/F	HLPD R/F	LSS
LPDR	ACNW	PDR	Central File
BYoungblood, HLWM	JLinehan HLWM	RBallard, HLEN	Chief, HLG
On-Site Reps	JConway, HLPD	KHooks, HLPD	

OFC : HZPD	: HZPD	: HLPD	:	:
NAME: JConway/D	: KHooks	: JLinehan	:	:
Date: 05/20/91	: 05/20/91	: 05/19/91	:	:

OFFICIAL RECORD COPY

## SURVEILLANCE OBSERVATION REPORT NO. 91-S5

### 1.0 INTRODUCTION

The Lawrence Livermore National Laboratory (LLNL), a participant in the Yucca Mountain Site Characterization Project (YMP), is responsible for the development of a waste package, which includes the definition of the package environment, material development and testing, package design, performance analysis, and testing. LLNL also provides assistance to other YMP participants in areas of specialized expertise.

From April 8-10, 1991, the Yucca Mountain Quality Assurance Division (YMQAD) of the Yucca Mountain Site Characterization Project Office (YMPO) conducted a quality assurance (QA) surveillance (YMP-SR-91-013) of the LLNL YMP QA program at Livermore, California. This surveillance was conducted in accordance with the YMPO Quality Management Procedure QMP-18-02, Revision 2, "Surveillances." A member of the U.S. Nuclear Regulatory Commission (NRC) staff participated in the surveillance as an observer. This report documents the staff's assessment of the effectiveness of the DOE/YMPO surveillance and the adequacy of the LLNL QA program procedural controls, including the status of their implementation under the Code of Federal Regulations Title 10, Part 50, Appendix B.

### 2.0 PURPOSE

This DOE/YMPO surveillance evaluated the adequacy of procedural controls and the status of their implementation under selected program elements of the LLNL QA program. The staff's purpose in observing this surveillance was to gain confidence that the DOE and LLNL are properly implementing the requirements of their QA programs by assessing the effectiveness of the DOE/YMPO surveillance and determining the adequacy of the LLNL QA program in the areas surveilled.

### 3.0 SCOPE

The DOE/YMPO surveillance team selected Criteria 2, 4, 7, and 18 requirements from the LLNL QA Program Plan (QAPP) for review and assessment of adequacy of procedural controls and status of procedural implementation. Procedures and activities associated with the above criteria were reviewed. The scope of this surveillance did not include any review of the technical adequacy and qualification of the technical products and activities.

### 4.0 PARTICIPANTS

The surveillance was conducted by Science Application International Corporation (SAIC) staff members working under the authority of the YMQAD. Robert Constable represented YMQAD, and the SAIC team consisted of John Martin and Richard Weeks. James Conway of the NRC staff observed the surveillance.

## 5.0 LLNL PERSONNEL CONTACTED

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

## 6.0 SUMMARY RESULTS

The DOE/YMPO surveillance team conducted a detailed examination and review of the LLNL records and documents to assess compliance with the procedural requirements. The team interviewed several LLNL personnel to assess their knowledge of relevant QA requirements and applicable implementing procedures under each criterion surveilled. Adequacy of controls and status of implementation for selected procedures were assessed and documented on the checklist for each of the criteria surveilled.

The team identified that the Quality Suppliers List did not reflect current qualified suppliers and LLNL Surveillance Report S90-06 contained incomplete checklists. During the course of this surveillance, LLNL took action to correct these deficiencies. In the procurement area, two LLNL procedures 033-YMP-QP 4.0 "Procurement Control and Documentation" and 033-YMP-QP 4.1 "Preparation of QA Requirements, Specifications and Approval" will be revised by LLNL to address the elimination of QA Levels 1, 2 and 3 and the initiation of the QA Grading Process.

When items and services are purchased for the YMP, the LLNL YMP procurement group initiates a purchase requisition which is sent to the LLNL central procurement office for subsequent procurement activities (e.g., contacting the vendor and issuing the PO). Since the last audit of LLNL in May 1990, only four quality related purchase orders (PO) were issued. One went to Kaiser Engineering for QA services, and three went to individuals for technical services contracts to perform a peer review. The surveillance team found the sample of four PO's too small to determine the effectiveness of procedural implementation.

It was noted that a dedicated buyer(s) has not been assigned to the LLNL YMP procurement actions, and personnel in LLNL central procurement have not been trained to the YMP procedures pertaining to procurement. It appears that procedural guidelines are remiss in the letting of contracts for the sole source supplier of services and in the establishment and documentation of internal interfaces which exist between LLNL YMP and LLNL central procurement for purchasing activities. A potential Corrective Action Request will be written by the DOE/YMPO surveillance team concerning these deficiencies.

## 7.0 NRC CONCLUSIONS

The NRC staff determined this limited surveillance to be useful and satisfactory in evaluating the implementation of QA requirements in the areas of training and qualification of personnel, procurement of items and services, audits, and surveillances. The DOE/YMPO surveillance team was well prepared and was familiar with the LLNL QAPP requirements and relevant QA procedures for the areas that were surveilled. The checklists were well prepared and utilized in determining the adequacy of procedural controls for the areas that were evaluated and the implementation of QA requirements in these areas. The team was thorough and professional in conducting the surveillance.

The NRC staff agrees with the DOE/YMPO surveillance team's preliminary conclusions that: the LLNL QA program provides adequate procedural controls for training and qualification of personnel, audits, and surveillances; there is satisfactory implementation in the areas of training and qualification of personnel, audits, and surveillances; and effective procedural implementation cannot be determined for procurement activities due to the limited amount of programmatic activity in this area.