

JH/LTR TO STEIN

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AUG 21 1990

Mr. Ralph Stein, Associate Director
for Systems Integration and Regulations
Office of Civilian Radioactive
Waste Management
U.S. Department of Energy, RW-30
Washington, DC 20585

Dear Mr. Stein:

SUBJECT: SURVEILLANCE OBSERVATION OF THE LAWRENCE LIVERMORE
NATIONAL LABORATORY QUALITY ASSURANCE PROGRAM

From August 6 through 9, 1990, the U.S. Nuclear Regulatory Commission (NRC) staff observed the U.S. Department of Energy (DOE)/Yucca Mountain Project Office (YMPO) Quality Assurance (QA) Surveillance (No. YMP-SR-90-035) of the Lawrence Livermore National Laboratory (LLNL) Yucca Mountain Project (YMP) QA program conducted at Livermore, California. This letter transmits the NRC Surveillance Observation Report for the DOE/YMPO surveillance.

The NRC staff evaluated the DOE/YMPO QA surveillance to gain additional confidence that DOE and LLNL are effectively implementing the requirements of their QA program. The NRC staff based its evaluation of the surveillance process and the LLNL QA program on direct observations of the surveillance team members, discussions with the surveillance team and the LLNL staff, and reviews of the pertinent surveillance information (e.g., the surveillance check-list, QA procedures and QA supporting records) and other available pertinent information.

The scope of this surveillance was limited to procedural implementation, and no assessment of the technical adequacy of the program was made during this surveillance. The surveillance team was familiar with the LLNL QA program procedures being implemented. Their checklist for this surveillance was well prepared and was effectively utilized in determining the status and effectiveness of program implementation. The team had good knowledge of the requirements of Nevada Nuclear Waste Storage Investigations Quality Assurance Plan (NNWSI/88-9) and the LLNL/YMP QA Program.

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The NRC staff found the DOE/YMPO surveillance of the LLNL QA program useful and effective. The NRC staff agrees with the DOE/YMPO surveillance team's preliminary conclusion that the LLNL QA program and its implementation are adequate considering the low level of activity at the LLNL.

If you have any questions concerning this report, please contact John Gilray of my staff at FTS 598-6125 or (702) 293-5369.

Sincerely,

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John J. Linehan, 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
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SURVEILLANCE OBSERVATION REPORT OF
LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL)
CONDUCTED AUGUST 6-9, 1990

1. INTRODUCTION

The U.S. Department of Energy (DOE) Yucca Mountain Project Office (YMPO) conducted, from August 6 through August 9, 1990, a surveillance (No. YMP-SR-90-035) of selected portions of the LLNL quality assurance (QA) Program at Livermore, California. The surveillance was conducted in accordance with the YMPO Quality Management Procedure QMP-18-02 "Surveillance", Revision 1. The U.S. Nuclear Regulatory Commission (NRC) staff observed the surveillance. This report documents the staff's assessment of the effectiveness of the DOE/YMPO surveillance and to a lesser extent, the adequacy of specific elements of LLNL's QA Program.

The LLNL is responsible for the development of the waste package for implementation in tuff, which includes the definition of the package environment, material development and testing, package design, and performance analysis.

2. SCOPE

This DOE/YMPO surveillance evaluated the implementation of the LLNL QA Program relative to Criterion 2, management assessment, and the QA training and qualification of LLNL personnel; Criterion 5, preparation, approval and revision of technical implementing procedures; Criterion 6, control distribution and use of quality related documents including the master list of controlled documents; Criterion 16, initiating, tracking, dispositioning and processing corrective actions; and Criterion 17, transmittal, receipt, acceptance and storage of quality related records. The LLNL/YMP QA implementing procedures used by the surveillance team in conducting this surveillance were: LLNL Quality Procedure (QP) 2.3, "Management Assessment," LLNL QP 2.9, "Indoctrination and Training," LLNL QP 2.10, "Qualification of Personnel," LLNL QP 2.1, "Preparation Approval and Revisions of Quality Procedure and Requirements," LLNL QP 5.0, "Technical Implementing Procedures: LLNL QP 6.0, "Document Control," LLNL QP 16.0, "Corrective Action" and LLNL QP 17.0, "QA Records." The scope of this surveillance was limited to QA procedural implementation and no assessment of the technical adequacy was made during this surveillance.

3. PURPOSE

The NRC staff's purpose in observing this surveillance was to gain additional confidence that the DOE and LLNL are properly and effectively implementing the requirements of the QA program. This was accomplished through QA related discussions with the surveillance team and LLNL personnel, by assessing the overall DOE/YMPO surveillance and by reviewing those LLNL QA procedures previously addressed in this report and the implementation of those procedures. The DOE/YMPO purpose of this surveillance was to determine if the LLNL QA program is being correctly implemented in those areas previously addressed in this report.

4. SURVEILLANCE PARTICIPANTS

DOE/YMPO

R. L. Maudlin, QA Team Leader (MACTEC)
K. T. McFall, Team Member (SAIC)
R. B. Constable, Team Member (DOE)

NRC

J. W. Gilray, Observer

The State of Nevada did not observe this surveillance.

5. SURVEILLANCE SUMMARY RESULTS

The surveillance team concluded that the QA program and implementation of this program was adequate and effective with the exception of a minor deficiency related to the control of records. The DOE/YMPO surveillance team performed reviews of LLNL QA implementing procedures which pertained to the scope of this surveillance and conducted effective interviews with LLNL personnel to determine their understanding with QA program requirements and extent of compliance. In addition nonconforming and corrective action reports and other back up QA records which support the implementation of the QA program were reviewed and evaluated as part of this surveillance.

6. LLNL PERSONNEL CONTACTED

D. W. Short, LLNL/YMP QA Manager
R. Hamati, LLNL/YMP QA Staff (Kaiser)
D. Good, LLNL/YMP Records Manager
B. Bryan, LLNL/YMP Project Administrator
L. Ballou, LLNL/YMP Deputy Project Leader

7. NRC CONCLUSIONS

The NRC staff found the DOE/YMPO surveillance of the LLNL QA program useful and effective. The surveillance team was familiar with the pertinent requirements set forth in LLNL QA program and implementing procedures. Their check list for this surveillance was well prepared and utilized in determining the effectiveness of implementation. The scope of this surveillance was limited QA procedural implementation and no assessment of the technical adequacy was made during the surveillance. The NRC staff agrees with the DOE/YMPO surveillance team's conclusion that the implementation of both procedures is adequate.

The NRC staff agrees with the preliminary DOE/YMPO findings that LLNL has an adequate QA program in place which is being properly and effectively implemented for those specific QA elements that were within the scope of this surveillance.