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A Division of Southwest Research Institute
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October 25, 1999
Contract No. NRC-02-97-009
Account No. 20.01402.761

U.S. Nuclear Regulatory Commission
ATTN: Mr. James Firth
Two White Flint North
11545 Rockville Pike
Mail Stop T8A23
Washington, DC 20555

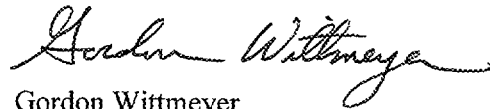
Subject: QA Task Force Report on LLNL DOE Audit
Milestone AI 20.1402.761.014

Dear Mr. Firth:

The enclosed report is being submitted as the hard copy version of the QA Task Force Report on the Lawrence Livermore Department of Energy Audit performed the week of September 13-17, 1999. An electronic version of this report was earlier submitted to Mr. Jack Spraul for use as in the NRC QA Task Force activities. This submittal fulfills the Administrative Item 20.01402.761.014.

If you have any questions regarding this report, please contact Bruce Mabrito at (210) 522-5149. Your cooperation in this matter is appreciated.

Sincerely,

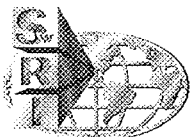


Gordon Wittmeyer
Manager
Performance Assessment

/mp
Enclosures

cc:	J. Linehan	D. DeMarco	W. Patrick
	B. Stiltenspole	J. Spraul	CNWRA Directors
	B. Meehan	L. Campbell	CNWRA Element Mgrs
	J. Greeves	T. Carter	T. Nagy (SwRI Contracts)
	J. Holonich	K. Hooks	
	W. Reamer	R. Codell	
	K. McConnell		
	K. Stablein		

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HIGH-LEVEL WASTE QUALITY ASSURANCE TASK FORCE
SUMMARY OF ACTIVITIES SEPTEMBER 13-17, 1999
U.S. DEPARTMENT OF ENERGY AUDIT AT
LAWRENCE LIVERMORE NATIONAL LABORATORY

During the week of September 13-17, 1999, members of the Division of High-Level Waste Management's Quality Assurance (QA) Task Force, John G. Spraul and Thomas C. Trbovich (representing the Center for Nuclear Waste Regulatory Analyses), observed the U.S. Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) audit of the Yucca Mountain Site Characterization Office (YMSCO) Management and Operating Contractor (M&O). The audit took place at the Lawrence Livermore National Laboratory (LLNL) in Livermore, California. The audit was the annual DOE compliance audit to evaluate the implementation, adequacy, and effectiveness of LLNL's activities supporting YMSCO. In addition, the audit team reviewed the status of previous deficiency documents to determine the effectiveness of completed corrective actions as well as the status of LLNL corrective actions initiated over the past year.

Other observers of the audit were:

Albert C. Williams	OCRWM Office of Quality Assurance (OQA)
Edward P. Opelski	OQA Contractor - Quality Assurance Technical Support Services (QATSS)

The DOE audit team was comprised of the following personnel:

Michael A. Goyda	OQA/QATSS (Audit Team Leader)
Mario R. Diaz	OQA
Kristi A. Hodges	OQA/QATSS
Victor J. Barish	OQA/QATSS
Floyd H. Dove	OQA/QATSS

An audit checklist, covering the QA program elements applicable to LLNL, was developed by the audit team prior to the audit. These QA program elements were Organization, Quality Assurance, Procurement Document Control, Implementing Documents, Document Control, Control of Purchased Items and Services, Control of Measuring and Test Equipment, Nonconformances, Corrective Action, QA Records, Software, Sample Control, Scientific Investigation, Control of the Electronic Management of Data, and Mined Geologic Disposal System. A copy of the checklist was provided to the observers at the opening meeting, and the checklist was used by the audit team members during the audit.

LLNL personnel who were interviewed during the week included, inter alios:

Barbara Alegre	Records Coordinator
William Bourcier	Principal Investigator (PI)
Barbara Campbell	Technical Area Leader (TAL) - Licensing Support
Bill Clark	TAL - Engineered Barrier System Materials & LLNL Repository Advisory Committee Member
John Estill	Laboratory Supervisor
William Glassley	PI
Martha Kohler	CRWMS LLNL Manager
Wunan Lin	TAL - Integrated Near Field Environment & PI

Royce Monks
Steve Steward
Ray Stout

Engineering Assurance Manager
PI
TAL - Waste Form and Waste Package Internals

Although there were no significant conditions adverse to quality noted during the audit, the audit team rated the implementation of two of the applicable QA program elements as unsatisfactory as shown in the table below:

QA PROGRAM ELEMENT	AUDIT TEAM CONCERNS
Implementing Documents	<ol style="list-style-type: none"><li data-bbox="634 541 1451 611">1. The electronic version of documents did not always agree with the hard copy<li data-bbox="634 611 1451 709">2. The revision number noted on the front page of the electronic version of procedures was not "carried through" the entire procedure.<li data-bbox="634 709 1451 808">3. Surveillances required by LLNL Technical Implementing Procedures did not reflect current organizations and processes.
QA Records	<ol style="list-style-type: none"><li data-bbox="634 835 1451 905">1. Records were corrected/changed by unidentified personnel.<li data-bbox="634 905 1451 1003">2. Changed records sent to the Records Processing Center in Las Vegas did not reflect the accession number of the record being changed.

The audit team also noted several concerns in other QA elements. These were either corrected during the audit or will be shown as recommendations in the audit report. The other QA program elements were rated as satisfactory.

The audit team was thorough and persistent in evaluating the QA program elements and pursuing discrepant conditions. The concerns expressed by the audit team generally related to activities that were completed prior to the all-hands QA training and the DOE/M&O emphasis on changing to a nuclear culture that occurred about mid-way through the audited period.

The NRC QA Task Force observers noted improvements and corrections in the active LLNL scientific notebooks. The same individuals observed the LLNL scientific notebook review activities of the DOE QA team during their last visit. The latest entries were in compliance with procedural requirements. Observation of and interviews with Charlie Warren, OQA's on-site QA representative at LLNL, indicate that his efforts are strengthening LLNL's QA program implementation. Interviews of LLNL personnel showed them to be more knowledgeable of QA requirements than during the LLNL scientific notebook review. LLNL management is closely monitoring corrective actions to ensure timely completion. Based on these facts and the lack of significant findings during the audit, the NRC QA Task Force observers believe that LLNL personnel are improving significantly in the areas of procedure adherence, attention to detail, and timely corrective measures in line with a nuclear culture.

ABBREVIATIONS

CRWMS	Civilian Radioactive Waste Management Systems
DOE	U.S. Department of Energy
LLNL	Lawrence Livermore National Laboratory
M&O	Management and Operating Contractor
OCRWM	Office of Civilian Radioactive Waste Management
OQA	Office of Quality Assurance, OCRWM
PI	Principal Investigator, LLNL
QA	Quality Assurance
QATSS	Quality Assurance Technical Support Services
TAL	Technical Area Leader, LLNL
YMSCO	Yucca Mountain Site Characterization Office

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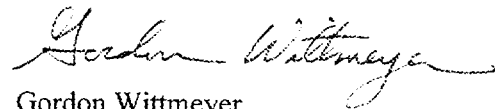
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