

July 25, 1999

MEMORANDUM TO: John T. Greeves, Director  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

FROM: Kenneth Hooks  
Uranium Recovery and  
Low-Level Waste Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: HIGH-LEVEL WASTE QUALITY ASSURANCE TASK FORCE ACTIVITIES

Attached for your information is the summary of observations made by the U.S. Nuclear Regulatory Commission (NRC), Office of Nuclear Material Safety and Safeguards, High-Level Waste Quality Assurance (HLW QA) Task Force concerning verification of the status of Quality Assurance (QA) Corrective Action Requests (CARs). The CARs resulted from deficiencies identified in implementation of the U.S. Department of Energy (DOE) QA program for the Yucca Mountain Project. The verification activities were performed by personnel of the Quality Assurance Technical Support Services group which reports to the DOE Office of Quality Assurance.

The verification activities were performed at the Los Alamos National Laboratory (LANL) on June 28 and 29, 1999, and at the Sandia National Laboratory (SNL) on June 30 and July 1, 1999. The verification team evaluated both the status of LANL and SNL efforts to resolve the CARs and the adequacy of the efforts. The verifications were thorough and detailed, made good use of information gained in previous reviews, and indicated that LANL and SNL have made good progress in reviewing and correcting QA deficiencies in past work.

As stated in the attached summary, the HLW QA Task Force members believe that LANL and SNL have made considerable progress in their efforts to correct past problems and strengthen the QA program to prevent future problems. However, the schedules established by the M&O and DOE for resolution of the CARs were very ambitious, and some slippage is evident. The HLW QA Task Force does not believe that it will be possible to properly evaluate the success of the DOE "recovery" program until sometime in 2000.

Attachment: As stated

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**HIGH-LEVEL WASTE QUALITY ASSURANCE TASK FORCE  
SUMMARY OF ACTIVITIES JUNE 28 - JULY 1, 1999  
VERIFICATION OF CORRECTIVE ACTIONS TO QUALITY ASSURANCE PROGRAM**

During June 28 through July 1, 1999, a member of the Division of Waste Management's High-Level Waste (HLW) Quality Assurance (QA) Task Force observed the activities of personnel representing the U.S. Department of Energy (DOE) in its review of the QA corrective actions being taken at Los Alamos National Laboratory (LANL) and Sandia National Laboratory (SNL). The corrective actions are being taken to correct deficiencies, outlined in DOE's January 25, 1999, letter to the NRC (CAR Management Plan), related to the qualification of data and computer models for the Yucca Mountain Project. The personnel performing the verification activities are members of the Quality Assurance Technical Support Services (QATSS) group who work directly for the DOE Office of Quality Assurance (OQA), and are qualified QA auditors who have performed audits of the HLW QA program.

The review was part of the second phase of verifications of the corrective actions at the national laboratories and the U.S. Geological Survey and investigated both the status of the efforts and the adequacy of the results. Phase 1 of the verification activities was performed in March and April of 1999, and was documented in a letter from DOE to the Management and Operating Contractor (M&O) dated April 27, 1999. The purposes of the verification activities, as stated in the Phase 1 report, are to confirm the real time status of the commitments specified in the CAR Management Plan and to provide management immediate feedback. The report noted that identification of items (i.e. data packages, computer codes, etc.) requiring reverification was incomplete, and that some of the completion dates in the CAR Management Plan appeared doubtful.

The verification team was thorough and performed detailed reviews, made good use of information gained in previous reviews, and indicated that both LANL and SNL have made good progress in reviewing and correcting QA deficiencies in past work. The efforts are limited to some degree by the resources available to LANL and SNL, and the tasks have frequently turned out to be more complex and difficult than initially assumed. The reverification of past work is competing with current work, including the development and implementation of new procedures under the Process Verification and Re-engineering program.

At the time of the visits to LANL and SNL, about 350 "acquired data" packages requiring reverification had been identified, and about 30 had been processed and submitted for review. All of the packages submitted have one or more items requiring resolution. LANL had completed and submitted one package (of about 30), and none had been completed and submitted by SNL (of 30 or less). The verification team indicated that the resource limitations and possible effects on the schedule for completion of the corrective actions had been brought to the attention of management.

It appears doubtful that the corrective actions discussed in the CAR Management Plan will be completed within the time limits previously understood by the NRC staff to be specified by DOE (end of October 1999). The items that must be qualified to support Site Recommendation and the License Application will be identified by the end of October 1999, but reverification/qualification will take longer. However, the actions should be effective and preclude future questions about the quality of the completed activities being reviewed and corrected as necessary. Based on work completed to date, evaluation of the effectiveness of the corrective actions in reverification/qualification of past data sets, computer models, etc. is unlikely before Spring of 2000.

**PARTIAL LIST OF PERSONNEL MET JUNE 28 - JULY 1, 1999**

Verification Team

Robert Hasson	QATSS/MACTEC
Kristi Hodges	QATSS/SAIC
Les Wagner	QATSS/SAIC

LANL

John Friend	QATSS/SAIC (OQA On-Site Representative)
Cleoves Martinez	M&O/LANL (Engineering Assurance Representative)
Jim Young	M&O/LANL (Technical Data Specialist)
Valerie Whitlock	M&O/LANL (Software Management Coordinator)

SNL

Jim Graff	QATSS/SAIC (OQA On-Site Representative)
Joe Schelling	M&O/SNL (Engineering Assurance Representative)
Mario Chavez	M&O/SNL (Software Management Coordinator)
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