



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 16, 1996

Mr. Ronald A. Milner, Director  
of Program Management and Integration  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, D.C. 20585

SUBJECT: OBSERVATION AUDIT OF LOS ALAMOS NATIONAL LABORATORY

Dear Mr. Milner:

I am transmitting the U.S. Nuclear Regulatory Commission Observation Audit Report OA-96-05 of the U.S. Department of Energy, Office of Civilian Radioactive Waste Management, Office of Quality Assurance, Yucca Mountain Quality Assurance Division (YMQAD) audit of the quality assurance (QA) program of the Los Alamos National Laboratory (LANL). The audit, YM-ARC-96-16, was conducted on June 24-28, 1996, at LANL offices in Los Alamos, New Mexico. The audit evaluated the adequacy and effectiveness of the LANL QA program in all applicable QA programmatic areas and in one technical area. The State of Nevada was also represented at this audit.

This compliance-based audit evaluated the implementation of the LANL QA program and included a performance-based technical evaluation of Study Plan 8.3.1.2.2.2, "Water Movement Tracer Tests Using Chloride and Chloride-36 Measurements of Percolation at Yucca Mountain." This study plan uses the ratio of  $^{36}\text{Cl}/\text{Cl}$  measurements to estimate groundwater residence time.

The audit team's overall finding was that the audit showed satisfactory LANL QA and technical performance. However, LANL's compliance with DOE procurement and software controls was rated unsatisfactory. Nonconformances were reported by the audit team at the post-audit conference as one preliminary Corrective Action Request, six preliminary Deficiency Reports, and one preliminary Performance Report. The NRC staff agrees with the audit team's findings noted above.

The NRC staff has determined that YMQAD Audit YM-ARC-96-16 was useful and effective. The audit was organized and conducted in a thorough and professional manner. Audit team members were independent of the activities they audited, they were well qualified in their disciplines, and their assignments and checklist items were adequately described in the audit plan.

YMQAD should continue to closely monitor implementation of the LANL QA program to ensure that the deficiencies identified during this audit are corrected in a timely manner and that future QA program implementation is effective. The NRC staff expects to participate in this monitoring as observers and may perform its own independent audits at a later date to assess LANL implementation of its QA program.

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R. Milner

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A written response to this letter is not required. If you have any questions, please call Jack Spraul of my staff on (301) 415-6715.

Sincerely,

*John O. Thorne for*

John H. Austin, Chief  
Performance Assessment and High-Level  
Waste Integration Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: As stated

cc: C. Johnson, State of Nevada  
M. Murphy, Nye County, NV  
B. Mettam, Inyo County, CA  
V. Poe, Mineral County, NV  
L. Bradshaw, Nye County, NV  
W. Barnard, NWTRB  
R. Holden, NCAI  
T. Burton, NIEC  
R. Arnold, Pahrump, NV  
S. Brocoum, YMPO  
W. Barnes, YMPO  
D. Horton, YMPO  
S. Zimmerman, State of Nevada  
B. Price, Nevada Legislative Committee  
J. Meder, Nevada Legislative Counsel Bureau  
M. Baughman, Lincoln County, NV  
D. Bechtel, Clark County, NV  
P. Niedzielski-Eichner, Nye County, NV  
W. Cameron, White Pine County, NV  
R. Williams, Lander County, NV  
L. Fiorenzi, Eureka County, NV  
J. Hoffman, Esmeralda County, NV  
J. Regan, Churchill County, NV  
N. Stellavato, Nye County, NV

R. Milner

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/S

John H. Austin, Chief  
Performance Assessment and High-Level  
Waste Integration Branch  
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