



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 2, 1995

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 U.S. GEOLOGICAL SURVEY

Dear Mr. Milner:

I am transmitting U.S. Nuclear Regulatory Commission Observation Audit Report OA-95-11 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 U.S. Geological Survey (USGS). The audit, YM-ARP-95-20, was conducted from September 6-7, 1995, at Yucca Mountain, Nevada, and from September 11-14, 1995, at the USGS offices in Denver, Colorado.

This audit evaluated the implementation of the USGS QA program for activities associated with the flow of data from field geologic and hydrologic investigations through development of an unsaturated hydrologic zone model for Yucca Mountain. The State of Nevada was not represented at this audit.

The NRC staff determined that the audit was effective. The audit team found that the USGS QA program had been effectively implemented in the areas audited, with the exception of the activities associated with the unsaturated zone model development, which was indeterminate. The NRC staff agrees with these conclusions. One draft Corrective Action Request was discussed at the exit meeting. It identified deficiencies in applying appropriate QA controls (including no software QA controls applied to the TOUGH2 code), inadequate personnel training, and inadequate technical reviews associated with the modeling efforts. In addition, three draft Deficiency Reports and one draft Performance Report were initiated.

This audit, YM-ARP-95-20, and the previous audit of USGS, YM-AR-95-12, have both identified significant deficiencies in technical reviews conducted under the USGS QA program. This repetitive condition is identified as an open item (Enclosure 2), and it will be tracked in the NRC Open Item Tracking System until satisfactorily resolved.

YMQAD should continue to closely monitor implementation of the USGS 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 USGS implementation of its QA program.

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R. Milner

Mr. Dwight E. Shelor

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A written response to this letter and the enclosed NRC Open Item is requested. If you have any questions, please call Jack Spraul of my staff on (301) 415-6715.

Sincerely,

Joseph J. Holonich, Chief
High-Level Waste & Uranium Recovery
Projects Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Enclosures: As stated (2)

- cc: R. Loux, State of Nevada
- J. Meder, Nevada Legislative Counsel Bureau
- W. Barnes, YMPO
- C. Einberg, DOE/Washington, DC
- M. Murphy, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO
- P. Niedzielski-Eichner, Nye County, NV
- B. Mettam, Inyo County, CA
- V. Poe, Mineral County, NV
- W. Cameron, White Pine County, NV
- R. Williams, Lander County, NV
- L. Fiorenzi, Eureka County, NV
- J. Hoffman, Esmeralda County, NV
- C. Schank, Churchill County, NV
- L. Bradshaw, Nye County, NV
- W. Barnard, NWTRB
- R. Holden, NCAI
- A. Melendez, NIEC
- S. Brocoum, YMPO
- R. Arnold, Pahrump, NV
- M. Stellavato, Nye County, NV
- J. Lyznicki, AMA

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R. Milner

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Sincerely,

(Original signed by)

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