

## EXHIBIT 4

Mr. Dwight Shelor, Acting Director  
Program Management and Administration  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION'S OBSERVATION AUDIT REPORT NO. OAR- 00-04, "OBSERVATION AUDIT OF OFFICE OF THE CIVILIAN RADIOACTIVE WASTE MANAGEMENT, QUALITY ASSURANCE DIVISION, AUDIT NO. M&O-ARP-00-004"

Dear Mr. Shelor:

I am transmitting the U.S. Nuclear Regulatory Commission's (NRC's) Observation Audit Report No. OAR-00-04 of the U.S. Department of Energy (DOE), Office of Civilian Radioactive Waste Management (OCRWM), Office of Quality Assurance (OQA), Yucca Mountain Quality Assurance Division, audit of the Unsaturated Zone (UZ) Flow and Transport Process Model Report (PMR) activities performed by the OCRWM Management and Operating Contractor (M&O). The audit, M&O-ARP-00-004, was conducted on January 24-28, 2000, at the Lawrence Berkeley National Laboratory (LBNL) in Berkeley, California.

This audit was limited in scope and evaluated the effectiveness of the implementation of the OCRWM QA Program described in the Quality Assurance Requirements and Description and its implementing procedures for selected analysis model reports (AMRs) supporting the UZ Flow and Transport PMR.

The NRC staff determined that this audit was effective in identifying deficiencies and recommending improvements in the AMR process. During the conduct of the audit, both the audit team and the NRC observers reviewed analysis reports and software within the scope of the audit to confirm that it was properly qualified. It was difficult to assess the adequacy of the AMRs, because much of the supporting data were in other incomplete, and/or unavailable AMRs.

NRC staff expressed a concern about the adequacy of the process controlling the preparation and use of procedures for the AMR process. As discussed in various sections of this report, the NRC staff is also concerned about software traceability and the lack of data qualification activities for the AMRs reviewed during this audit and the three previous audits. This condition continues to require DOE's management attention.

**EXHIBIT 4**

D. Shelor

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A written response to this letter and the enclosed report is not required. If you have any questions, please contact Ted Carter of my staff at (301) 415-6684.

Sincerely,

C. William Reamer, Chief  
High-Level Waste and Performance  
Assessment Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: NRC Observation Audit Report No. OAR-00-04, "Observation Audit of the Office of Civilian Radioactive Waste Management, Quality Assurance Division, Audit No. M&O-ARP-00-004"

cc See attached list

## EXHIBIT 4

Letter to D. Shelor from C.W. Reamer dated: \_\_\_\_\_

cc: R. Loux, State of Nevada  
S. Frishman, State of Nevada  
L. Barrett, DOE/Wash, DC  
A. Brownstein, DOE/Wash, DC  
N. Slater, DOE/Wash, DC  
R. Dyer, YMPO  
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B. Price, Nevada Legislative Committee  
J. Meder, Nevada Legislative Counsel Bureau  
D. Bechtel, Clark County, NV  
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R. Arnold, Pahrump County, NV  
J. Lyznicky, AMA  
R. Clark, EPA  
F. Marcinowski, EPA  
R. Anderson, NEI  
R. McCullum, NEI  
S. Kraft, NEI  
J. Kessler, EPRI  
R. Wallace, USGS  
R. Craig, USGS  
W. Booth, Engineering Svcs, LTD  
S. Trubatch, Winston & Strawn

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Sincerely,

C. William Reamer, Chief  
 High-Level Waste and Performance  
 Assessment Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

Enclosure: NRC Observation Audit Report No. OAR-00-04, "Observation Audit of the Office of Civilian Radioactive Waste Management, Quality Assurance Division, Audit No. M&O-ARP-00-004"

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