

April 5, 2004

Dr. Gordon Wittmeyer, Manager
Hydrogeology
Center for Nuclear Waste Regulatory Analyses
6220 Culebra Road, Bldg. 189
San Antonio, TX 78238-5166

SUBJECT: COMPLETION OF INTERMEDIATE MILESTONE 06002.01.091.410: ANALYSIS
OF IN-DRIFT ENVIRONMENTAL CONDITIONS

Dear Dr. Wittmeyer:

The U.S. Nuclear Regulatory Commission staff has completed its review of the subject document that you sent by cover letter, dated September 10, 2003. This product is both programmatically and technically acceptable. This report provides estimates of waste package temperature and relative humidity along drifts for both drift-degradation and no-degradation scenarios. These estimates include the effects of repository edge cooling and thermohydrology and are compared with estimates from basecase TPA Version 5.0 simulations. The report also describes both completed and ongoing laboratory experiments.

If you have any questions, please contact me at (301) 415-6703 or by e-mail at jap2@nrc.gov.

Sincerely,

Jeffrey A. Pohle, Program Element Manager
Thermal Effects on Flow Key Technical Issue
Division of High-Level Waste Repository Safety
Office of Nuclear Material Safety
and Safeguards

cc: B. Meehan, ADM/DCPM/CMC1
C.W. Reamer, HLWRS

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