



Department of Energy
Office of Civilian Radioactive Waste Management
Office of Repository Development
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QA: N/A
Project No. WM-00011

JUL 07 2004

OVERNIGHT MAIL

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TRANSMITTAL OF APPENDIX I, *TECHNICAL BASIS DOCUMENT NO. 2: UNSATURATED ZONE FLOW ADDRESSING KEY TECHNICAL ISSUE (KTI) AGREEMENTS UNSATURATED AND SATURATED ZONE FLOW UNDER ISOTHERMAL CONDITIONS (USFIC) 4.04, GENERAL (GEN) 1.01 (COMMENTS 24 AND 69), AND TOTAL SYSTEM PERFORMANCE ASSESSMENT AND INTEGRATION (TSPAI) 2.02 (COMMENT J-20)*

Reference: Ltr, Ziegler to Director, Division of High-Level Waste Repository Safety (NRC), dtd 5/28/04 (TBD No. 2: *Unsaturated Zone Flow*, Revision 1, Addressing KTI Agreements Related to Unsaturated Zone Flow)

This letter transmits Appendix I of *Technical Basis Document No. 2: Unsaturated Zone Flow*. This Technical Basis Document contains a summary of the current modeling of flow in the unsaturated zone and provides the context within which individual KTI agreements related to flow in the unsaturated zone are addressed. Appendices A through G of the Technical Basis Document were submitted with the referenced letter. Appendices H and I are being transmitted individually under separate cover letters.

Appendix I, *Effectiveness of the PTn to Dampen Episodic Flow, Including Reconciliation of ³⁶Cl Studies*, provides a direct response to KTI agreement USFIC 4.04, GEN 1.01 (Comments 24 and 69), and TSPAI 2.02 (Comment J-20). This appendix provides documentation of the effectiveness of the PTn unit to dampen episodic flow, including reconciling the differences in ³⁶Cl studies.

The U.S. Department of Energy considers USFIC 4.04, GEN 1.01 (Comments 24 and 69), and TSPAI 2.02 (Comment J-20) to be fully addressed in Appendix I of *Technical Basis Document 2: Unsaturated Zone Flow*, and pending review and acceptance by the U.S. Nuclear Regulatory Commission, these agreements should be closed.

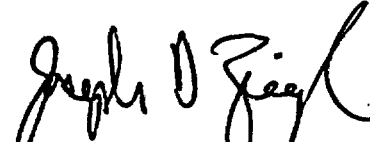
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There are no new regulatory commitments in the body or the enclosure to this letter. Please direct any questions concerning this letter and its enclosure to Carol L. Hanlon at (702) 794-1324 or e-mail carol_hanlon@ymp.gov, or Eric T. Smistad at (702) 794-5073 or e-mail eric_smistad@ymp.gov.



Joseph D. Ziegler, Director
Office of License Application and Strategy

OLA&S: CLH-1446

Enclosure:

*Appendix I, Effectiveness of the PTn
to Dampen Episodic Flow, Including
Reconciliation of ³⁶Cl Studies*

JUL 07 2004

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