

February 11, 2005

Mr. Joseph D. Ziegler, Director
Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy
1551 Hillshire Drive
North Las Vegas, NV 89134-6321

SUBJECT: PRE-LICENSING EVALUATION OF KEY TECHNICAL ISSUE AGREEMENTS:
UNSATURATED AND SATURATED FLOW UNDER ISOTHERMAL CONDITIONS
3.01 AND 3.02; AND TOTAL SYSTEM PERFORMANCE ASSESSMENT AND
INTEGRATION 3.18, 3.19, AND 3.21

Dear Mr. Ziegler:

In a letter dated May 7, 2004, the U.S. Department of Energy (DOE) submitted a report titled, "Technical Basis Document No. 1 (TBD No.01): Climate and Infiltration," which contains DOE's responses to several agreement items reached between DOE and the U.S. Nuclear Regulatory Commission (NRC) and pertaining to the Key Technical Issues (KTI): Unsaturated and Saturated Flow Under Isothermal Conditions (USFIC) and Total System Performance Assessment and Integration (TSPAI). The staff review of DOE's responses to the agreement items is based on information requests by NRC that are documented in the summary highlights of DOE and NRC technical exchange and management meetings. The enclosed report provides a summary of NRC staff evaluation of responses for Agreements USFIC.3.01, 3.02, and TSPAI.3.18, 3.19, and 3.21.

The NRC staff reviewed DOE's agreement response for Agreement USFIC.3.01 and found the methodology used by DOE to select infiltration maps and weighting factors does not adequately reflect the uncertainty in infiltration estimates.

The NRC staff reviewed DOE's responses to Agreements USFIC.3.02, and TSPAI.3.18, 3.19, and 3.21. On the basis of the enclosed review, and notwithstanding new information that could raise new questions or comments concerning the preceding agreements, DOE has provided sufficient information to satisfactorily address these agreements.

Specific feedback on these agreement responses is provided for consideration by DOE. It is up to DOE to decide how, or whether, to respond to the staff's feedback. The NRC staff will make its final determination on any issues relevant to licensing during review of any potential License Application.

J. D. Ziegler

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If you have any questions regarding this matter, please contact Daniel S. Rom, of my staff at (301) 415-6704 or by e-mail to DSR@nrc.gov.

Sincerely,

/RA/

Lawrence E. Kokajko, Deputy Director
Division of High-Level Waste Repository Safety
Office of Nuclear Material Safety
and Safeguards

Enclosure:

The U.S. NRC NMSS Review of DOE's KTI Agreement Responses Related to the Potential Geologic Repository at Yucca Mountain, Nevada: USFIC.3.01, 3.02, TSPA.3.18, 3.19, and 3.21

cc: See attached list.

Letter to J. D. Ziegler from L. E. Kokajko, dated: February 11, 2005

cc:

A. Kalt, Churchill County, NV	A. Elzeftawy, Las Vegas Paiute Tribe
R. Massey, Churchill/Lander County, NV	J. Treichel, Nuclear Waste Task Force
I. Navis, Clark County, NV	W. Briggs, Ross, Dixon & Bell
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M. Baughman, Lincoln County, NV	W. Boyle, DOE/ORD
L. Mathias, Mineral County, NV	D. Brown, DOE/OCRWM
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S. Lynch, State of NV	B. Helmer, Timbisha Shoshone Tribe
P. Guinan, Legislative Counsel Bureau	R. Boland, Timbisha Shoshone Tribe
R. Clark, EPA	R. Arnold, Pahrump Paiute Tribe
R. Anderson, NEI	J. Birchim, Yomba Shoshone Tribe

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S. Kraft, NEI

J. Kessler, EPRI

D. Duncan, USGS

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W. Booth, Engineering Svcs, LTD

C. Marden, BNFL Inc.

J. Bacocho, Big Pine Paiute Tribe of the Owens Valley

P. Thompson, Duckwater Shoshone Tribe

T. Kingham, GAO

D. Feehan, GAO

E. Hiruo, Platts Nuclear Publications

G. Hernandez, Las Vegas Paiute Tribe

K. Finrock, NV Congressional Delegation

P. Johnson, Citizen Alert

A. Capoferri, DOE/Washington, DC

J. Williams, DOE/Washington, DC

A. Robinson, Robinson-Seidler

M. Dayton, City of Las Vegas

D. Wilson, Sen. Reid's Office

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R. Wilder, Fort Independence Indian Tribe

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J. Leeds, Las Vegas Indian Center

J. C. Saulque, Benton Paiute Indian Tribe

C. Bradley, Kaibab Band of Southern Paiutes

R. Joseph, Lone Pine Paiute-Shoshone Tribe

L. Tom, Paiute Indian Tribes of Utah

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D. Buckner, Ely Shoshone Tribe

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D. Crawford, Inter-Tribal Council of NV

I. Zabarte, Western Shoshone National Council

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J. D. Ziegler

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cc: See attached list.

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