

January 28, 2005

Mr. Joseph 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 TOTAL SYSTEM PERFORMANCE  
ASSESSMENT AND INTEGRATION (TSPAI) KEY TECHNICAL ISSUE  
AGREEMENTS TSPAI.1.02, 3.37, 3.38 ADDITIONAL INFORMATION NEEDED  
(AIN)-1, 3.39 AIN-1, 3.41 AIN-1, 4.01 AIN-1, 4.03, 4.04, 4.06 AND COMMENTS  
78, 96, 111, and 120 OF GENERAL (GEN) AGREEMENT GEN.1.01

Dear Mr. Ziegler:

This letter is in reference to Total System Performance Assessment and Integration (TSPAI) Key Technical Issue (KTI) agreements TSPAI.1.02, 3.37, 3.38 additional information needed (AIN)-1, 3.39 AIN-1, 3.41 AIN-1, 4.01 AIN-1, 4.03, 4.04, 4.06 and Comments 78, 96, 111, and 120 of General (GEN) agreement GEN.1.01. The U.S. Department of Energy (DOE) responded to these KTI agreements and Comments 78, 96, and 111 in an enclosure to a letter dated August 31, 2004. The DOE also provided a response to Comment 120 in an enclosure to a letter dated December 9, 2003.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed DOE's responses to these agreements and comments. Based on our review of the information provided, NRC staff considers the pre-licensing activities associated with TSPAI.1.02, 3.37, 4.03, 4.04, and 4.06 and Comments 78, 96, 111, and 120 of GEN.1.01 to be closed. However, NRC staff needs additional information for TSPAI.3.38, 3.39, 3.41, and 4.01. The staff considers that DOE has not provided an acceptable technical basis for the evaluation of model uncertainty in the total system performance assessment. Results of our review and specific feedback on DOE's responses are provided in the enclosure to this letter.

It is up to DOE to decide how, or whether, to respond to staff's feedback. Please note that NRC will make its final determination on any issues relevant to licensing during review of any License Application.

J.D. Ziegler

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If you have any questions regarding this matter, please contact Daniel Rom, of my staff, at 301-415-6704 or by e-mail to [dsr@nrc.gov](mailto: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:

NMSS Review of DOE KTI Agreement Response to TSPAI.1.02, 3.37, 3.38 Additional Information Needed (AIN)-1, 3.39 AIN-1, 3.41 AIN-1, 4.01 AIN-1, 4.03, 4.04, 4.06 and Comments 78, 96, 111, and 120 of General (GEN) Agreement GEN.1.01, for a Potential Geologic Repository at Yucca Mountain, Nevada

cc: See attached list

Letter to J.D. Ziegler from L.E. Kokajko, dated: January 28, 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
E. von Tiesenhausen, Clark County, NV	M. Chu, DOE/Washington, D.C.
G. McCorkell, Esmeralda County, NV	G. Runkle, DOE/Washington, D.C.
R. Damele, Eureka County, NV	C. Einberg, DOE/Washington, D.C.
L. Marshall, Eureka County, NV	S. Gomberg, DOE/Washington, D.C.
A. Johnson, Eureka County, NV	W. J. Arthur, III , DOE/ORD
A. Remus, Inyo County, CA	R. Dyer, DOE/ORD
M. Yarbrow, Lander County, NV	J. Ziegler, DOE/ORD
S. Hafen, Lincoln County, NV	A. Gil, DOE/ORD
M. Baughman, Lincoln County, NV	W. Boyle, DOE/ORD
L. Mathias, Mineral County, NV	D. Brown, DOE/OCRWM
D. Swanson, Nye County, NV	S.A. Wade,, DOE/ORD
M. Maher, Nye County, NV	C. Hanlon, DOE/ORD
D. Hammermeister, Nye County, NV	T. Gunter, DOE/ORD
M. Simon, White Pine County, NV	A. Benson, DOE/ORD
J. Ray, NV Congressional Delegation	N. Hunemuller, DOE/ORD
B. J. Vonderheide, NV Congressional Delegation	R. L. Craun, DOE/ORD
T. Story, NV Congressional Delegation	M. Mason, BSC
R. Herbert, NV Congressional Delegation	S. Cereghino, BSC
M. Murphy	N. Williams, BSC
S. Joya, NV Congressional Delegation	E. Mueller, BSC
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R. Loux, State of NV	D. Beckman, BSC/B&A
S. Frishman, State of NV	M. Voegelé, BSC/SAID
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

cc: (Continued)

R. McCullum, NEI

S. Kraft, NEI

J. Kessler, EPRI

D. Duncan, USGS

R. Craig, USGS

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

L. Lehman, T-REG, Inc.

J. Donnell, DOE/ORD

R. L. Craun, OPM&E

B. Gattoni, Burns & Roe

R. Murray, DOE/ORD

R. Holden, NCAI

C. Meyers, Moapa Paiute Indian Tribe

R. Wilder, Fort Independence Indian Tribe

D. Vega, Bishop Paiute Indian Tribe

J. Egan, Egan, Fitzpatrick, Malsch, PLLC

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

E. Smith, Chemehuevi Indian Tribe

D. Buckner, Ely Shoshone Tribe

V. Guzman, Walker River Paiute

D. Eddy, Jr., Colorado River Indian Tribes

H. Jackson, Public Citizen

J. Wells, Western Shoshone National Council

D. Crawford, Inter-Tribal Council of NV

I. Zabarte, Western Shoshone National Council

S. Devlin

G. Hudlow

D. Irwin, Hunton & Williams

L. Alfano, Lincoln County

M. Henderson, Cong. J. Gibbon's Office

D. Duquette, NWTRB

J.D. Ziegler

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

Sincerely,

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

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cc: See attached list

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<b>NAME</b>	JMoore*		LKokajko							
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