

February 18, 2004

Mr. Robert R. Loux, Executive Director
Agency for Nuclear Projects
Office of the Governor
State of Nevada
1802 N. Carson Street, Suite 252
Carson City, Nevada 89701

Dear Mr. Loux:

I am responding on behalf of the U.S. Nuclear Regulatory Commission (NRC) staff to the request from the State of Nevada, dated September 15, 2003, to discuss aspects of Yucca Mountain hydrology. Your letter included four questions regarding the hydrologic model component of the NRC's Total-system Performance Assessment (TPA) code. In this regard, I would direct your attention to the Total-system Performance Assessment (TPA) Version 4.0 Code: Module Descriptions and User's Guide and source code which we sent to you under cover of letters dated May 21, 2003, and January 14, 2004, respectively. The User's Guide provides descriptions of consequence modules that simulate physical processes and events, including those related to Yucca Mountain hydrology, affecting release, transport, and evolution of the waste. The User's Guide, coupled with the source code for TPA 4.1jpd, should answer your questions regarding the hydrologic conceptualizations employed in TPA Version 4.1jpd.

If, after reviewing the code and related explanatory information, you have questions remaining, NRC is willing to consider having a dialogue regarding these hydrologic issues at Yucca Mountain. In order to evaluate the need for such dialogue, please provide a written listing of specific hydrologic issues that you believe may significantly affect the performance of the repository, including a technical basis for each issue. If the NRC staff agrees a future public meeting would be beneficial, the NRC staff requests that the State of Nevada provide a presentation at the public meeting of these specific hydrologic issues and the associated technical basis for each issue. Such a list and presentation are needed to ensure that the NRC staff can better understand the substance of your concerns beforehand, and then engage in a mutually beneficial, focused and meaningful discussion regarding those matters.

If you have any questions regarding this letter, please contact Andrew Campbell of my staff at (301) 415-6897 or (acc@nrc.gov).

Sincerely,

/RA/

Lawrence E. Kokajko, Chief
Environmental & Performance
Assessment Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

cc: See attached distribution list

Letter or Memorandum to R. Loux from L. Kokajko dated: February 18, 2004

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