May 21, 1993

Aaron R. DeWispelare
Center for Nuclear Waste
Regulatory Analyses
6220 Culebra Road
San Antonio, Texas 78228-0510

Dear Mr. DeWispelare:

SUBJECT: OBSERVATIONS REGARDING APRIL 22-23, 1993 CLIMATOLOGY EXPERT PANEL MEETING (IPA PHASE 2.5)

I would like to take this opportunity to provide you with some observations that I made during the Climatology Expert Panel Meeting, held on April 22-23, 1993 at the CNWRA.

Let me begin by complimenting you on your efforts in arranging this initial meeting of the experts selected to participate in this formal expert elicitation process. I found the meeting to be well organized and run. In addition, the background talks presented by Wes Patrick, Mike Miklas, Jim Norwine, and yourself were informative and pertinent. I believe also that Bob Clemen gave an excellent presentation and provided a suitable introduction to the biases inherent in subjective assessments of uncertainty. He also made it clear to the climatology experts that the questions asked of them would be arranged in such a manner as to reduce the bias in their responses.

I would also like to raise the following concern. It appeared from the meeting that the climatology experts needed a better understanding of how the data they provide will be used in a performance assessment. At several points during the meeting, they raised questions regarding the form of the input required to model infiltration and subsurface flow at the Yucca Mountain site, questions which those attending could not fully answer. I believe that the presence at the meeting of a modeler involved in the Phase 2 performance assessment hydrologic modeling, currently on-going at the NRC and the CNWRA, would have given the climatology experts a more complete understanding of how their input would be factored into the modeling effort.

In addition, I also believe that it would have been helpful to the climatology experts to hear a description of the "abstraction" process and its relationship to the estimation of repository performance over 10,000 years. This process is part of a strategy which involves (1) the use of process-specific models and computer codes to examine detailed phenomena which may be important to repository performance, and (2) the use of relatively less detailed models and codes, which incorporate those phenomena determined to be

important by the more detailed level of modeling, in calculations of overall system and subsystem performance. I think that such a discussion could have been used to give the climatologists a sense of how their modeling efforts fit into the current concepts regarding estimating repository performance.

If you have any questions regarding these observations, please do not hesitate to call. I can be reached at (301) 504-2592.

Sincerely,

/s/

James R. Park
Repository Performance Assessment Section
Hydrology & Systems Performance Branch
Division of High-Level Waste Management, NMSS

DISTRIBUTION:

Central File	BJYoungblood, HLWM	JJLinehan, HLWM	HLHP r/f
MVFederline, HLHP	RLBallard, HLGE	JHolonich, HLPD	NMSS r/f
CNWRA	LPDR	ACNW	PDR
	LSS		

OFC	HLHP	C	HLHP RC for		HLHP RC for		HLHP	
NAME	JPark/ga jrp		JBuckley		NEisenberg		MVFederline	
DATE	05/21/93		05/21/93		05/23/93		05/>>/93	

C = COVER E = COVER & ENCLOSURE N = NO COPY

g:\ejmtg1.cmt