Summary of the Resolution of the Key Technical Issue on Unsaturated and Saturated Flow Under Isothermal Conditions

Subissue #	Subissue Title	Status	NRC/DOE Agreements
1	Climate Change	Closed	None
2	Hydrologic Effects of Climate Change	Closed	None
3	Present-Day Shallow Infiltration	Open	See attached DOE Action Plan for Net Infiltration Issues (Attachment 2)
4	Deep Percolation	Closed-Pending	1) The on-going and planned testing (see Attachment 3) are a reasonable approach for a licensing application with the following comments: a. For Alcove 8, Niche 3, consider a mass balance of water. b. Monitor evaporation during all testing. c. Provide testing plans and consider NRC comments, if any. 2) Include the effect of the low-flow regime processes (e.g., film flow) in DOE's seepage fraction and seepage flow, or justify that it is not needed. 3) When conducting seepage studies, consider smaller scale tunnel irregularities in drift collapse or justify that it is not needed. 4) Provide final documentation for the effectiveness of the PTn to dampen episodic flow, including reconciling the differences in chloride-36 studies. 5) Provide the analysis of geochemical data used for support of the flow field below the repository.

5	Saturated Zone Ambient Flow Conditions and Dilution Processes	Open - See Note 1	TBD - See Note 1
6	Matrix Diffusion (UZ)	Closed-Pending	1) The DOE will provide the final sensitivity analysis on matrix diffusion in the TSPA-SR, Rev. 0. Due Date: December 2000 2) The DOE will provide the final detailed testing plan for Alcove 8. The testing plan will be provided by August 28, 2000. The NRC staff will provide comments if any no later than two weeks after receiving the testing plan. 3) The DOE will complete the Alcove 8 testing, taking into consideration the NRC staff comments if any, and document the results in a DOE-approved AMR, due date: May 2001.
	Matrix Diffusion (SZ) See Note 1	Open - See Note 1	TBD - See Note 1

Note 1 - Saturate Zone Ambient Flow Conditions and Dilution Processes (Subissues 5 & 6) were not addressed at this meeting and will be addressed in a future meeting.