January 11, 2007

Ms. Tara Neider
President and COO
Transnuclear, Inc.
7135 Minstrel Way, Ste. 300
Columbia, MD 21045

SUBJECT: POTENTIAL DISCREPANCY WITH THERMAL ANALYSIS ASSOCIATED WITH THE TRANSFER CASK NEUTRON SHIELD FOR THE STANDARDIZED NUHOMS® DESIGN

Dear Ms. Neider:

The Nuclear Regulatory Commission (NRC) has recently become aware of a potential discrepancy in the thermal analysis associated with the transfer cask neutron shield for the Standardized NUHOMS® design. Specifically, the temperature profile shown in Figure 8.1-11 of the Standardized NUHOMS® Updated Final Safety Analysis Report (UFSAR) appears to contain an error. The temperature profile shows a temperature of 290°F for the inner wall of the neutron shield and 235°F for the outer wall of the neutron shield for the analysis associated with the 100°F ambient conditions of the standardized transfer cask. Simple calculations by NRC staff suggest that the temperature difference between the inner and outer wall of the neutron shield should be greater (i.e, on the order of 140°F instead of the 55°F shown in Figure 8.1-11 of the UFSAR). A higher temperature difference across the neutron shield could point to, among other things, the following issues: 1) the adequacy of the thermal model or parameters used to perform the analysis and 2) higher temperatures in the neutron shield which could exceed specified design limits and potentially impact the neutron shielding capabilities of the resin used in the transfer cask.

The purpose of this letter is to inform you of the potential discrepancy so that appropriate corrective actions may be taken if warranted, including potential corrections to the technical bases of the UFSAR. A response to this letter is not required. Any actions that Transnuclear Inc., may take as a result of this letter are subject to future NRC inspection.

If you have any questions regarding this matter please contact me at 301-415-8500.

Sincerely,

/RA/

Joseph M. Sebrosky, Senior Project Manager
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 72-1004

Ms. Tara Neider
President and COO
Transnuclear, Inc.
7135 Minstrel Way, Ste. 300
Columbia, MD 21045

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Joseph M. Sebrosky, Senior Project Manager
Division of Spent Fuel Storage and Transportation
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*see previous concurrence

OFC	SFST	E	SFST	E	SFST	E	SFST		SFST	E	SFST	
NAME	JSebrosky		MDebose*		JSolis*		MRahimi*		RLewis*		MWaters*	
DATE	1/11/07		1/9/07		1/10/07		1/10/07		1/11/07		1/11/07	

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