November 21, 2006

NOTE TO: FILE

DOCKET NO: 71-9313

SUBJECT: 11/16/2006, 1:00PM, CONFERENCE CALL WITH TRANSNUCLEAR TO DISCUSS BURNUP CREDIT METHODOLOGY FOR TN-40

ATTENDEES:

NRC	TRANSNUCLEAR	PRAIRIE ISLAND
Meraj Rahimi	Jayant Bondre	Lee Sampson
Andrew Barto	Prakash Narayanan	H. O. Nelson
	Tara Neider	
	Don Shaw	
	Bob Grubb	

DISCUSSION:

By letter dated August 7, 2006, Transnuclear, Inc. (TN) submitted an application for approval of the TN-40 storage cask design as a transportation package. As a result of the application's acceptance review, the staff identified that impact limiter test data was missing from the safety analysis report. Subsequently, by letter dated November 8, 2006, the staff informed TN that the application is considered to be incomplete. In the letter, the staff stated that when TN submits the test data, which according to TN will be sometime in January 2007, the staff will consider the application complete and would start its technical review. As part of its acceptance review, staff identified possible improvements in other areas of the application that could result in reducing the number of questions by the staff during its technical review. One such area is the methodology to determine burnup credit.

On November 16, 2006, the NRC staff discussed with TN, through a telephone conference, the general burnup credit methodology. The discussion focused on benchmarking, assumptions on irradiation parameters, and burnup verification measurement. With regard to isotopic benchmarking, the staff stated that the normality tests, trending analyses with respect to important parameters such as burnup and initial enrichment, and development of isotopic correction factors based on tolerance band technique should be performed. In addition, the staff stated that the selection of isotopes should be based on solubility, volatility, and stability factors. With regard to criticality benchmarking, the staff stated that referencing the Oak Ridge National Laboratory Reactor Restart benchmark results in the safety analysis report, without TN performing its own the benchmarks, is not an appropriate method to establish TN's criticality computer code biases. With respect to burnup verification measurement, the staff stated that TN needs to provide a justification in the application for not performing any burnup verification measurements. Because there are a number of TN-40 casks which have been already loaded, a possible solution to not reopening these casks could be burnup verification of spent fuel assemblies which are scheduled to be loaded in the future. This approach could provide confidence in reactor records on burnups and the loading process for those casks which have been already loaded as well as for those remaining to be loaded.

No regulatory decisions were made by the NRC during the telephone conference.

Docket No. 71-9313
TAC No. L23972

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