March 25, 2009

MEMORANDUM TO: Michael L. Scott, Deputy Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Meraj Rahimi, Senior Project Manager **/RA/**
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF MARCH 4, 2009, MEETING WITH TRANSNUCLEAR, INC., ON THE TN-40 TRANSPORTATION PACKAGE DESIGN APPLICATION (DOCKET NO. 71-9313, TAC NO. L24106)

A meeting was held on March 4, 2009, in Rockville, Maryland, at the request of Transnuclear, Inc., (TN) to clarify the second Request for Additional Information (RAI) issued by the staff on January 29, 2009, on the application submitted by TN on July 3, 2007. At this meeting, TN also sought the staff feedback on the proposed approaches for responding to the RAI.

BACKGROUND

In August 2006, TN submitted the TN-40 transportation package design, which had been licensed for storage only at the Prairie Island site, for NRC review and approval. In November 2006, the staff informed TN that the 1/3-scale test results for the impact limiters were missing from the application. Therefore, the application was considered incomplete. In June 2007, TN submitted those test results, and provided supplemental information regarding the burnup credit analysis methodology used in the criticality analysis. In August 2007, the staff acknowledged the receipt of the information, and identified the need for the computer inputs for the ANSYS model and the related calculation packages for the thermal analyses. In September 2007, TN provided the requested computer inputs and calculation packages for certain thermal analyses. In May 2008, the staff issued the first round RAI. After two subsequent meetings with the staff in July 2008, TN submitted the responses to the first round RAI in August 2008. After reviewing the responses to the first round RAI, the staff determined a need for a second round RAI which was issued in January 2009. The following sections provide a summary of discussions between the staff and TN on the second round RAI which took place on March 4, 2009. Some portions of the meetings in the areas of structural and criticality were closed to the public due to the proprietary nature of the information. A list of attendees and the meeting materials are included in Enclosures 1, 2, and 3.

STRUCTURAL

The staff indicated that the use of g-loads recorded from one-third scale test instead of the g-load predicted by the applicant's computer code would be more appropriate. The staff also indicated that more information on the fabricator's weld procedures is needed to assess the integrity of the welds.

SHIELDING

The discussion on shielding focused on the acceptance and maintenance tests which are normally performed under Part 71 to determine the integrity of the shielding materials. However, since most of the TN-40 casks were loaded under Part 72, these tests have not been performed. Since the application is for one time shipment of each TN-40 unit, the maintenance may not be an issue. With respect to examination of each TN-40 unit prior to its first use, according to 10 CFR 71.83, the applicant may have done some tests as part of the fabrication that may be acceptable. The staff indicated that they have to check with appropriate people at the NRC to make that determination.

THERMAL

The thermal discussion was also focused on the acceptance tests that are normally performed on packaging units prior to their first use. The staff indicated that it will consider alternative ways in satisfying the requirements of 10 CFR 71.85.

CRITICALITY

With respect to the need for criticality benchmarking as indicated in the RAIs, the staff emphasized the need for the applicant to analyze and run the Reactor Critical Restarts (CRC) on its computer platform. Other discussions related to Burnup Credit were proprietary in nature.

TN indicated that their plan is to have another meeting at the end of April before submitting the RAI responses. No regulatory decisions were made at the meeting.

Docket No. 71-9313
TAC No. L24106

Enclosures:
1. Attendance List
2. Non-Proprietary Meeting Handout
3. Proprietary Meeting Handout

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Meeting Between Transnuclear and the Nuclear Regulatory Commission
March 4, 2009

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Enclosure 1

Enclosure 2
Non-Proprietary Meeting Handouts

Enclosure 3
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