

February 18, 2011

MEMORANDUM TO: Doug Weaver, Deputy Director
Licensing and Inspection Directorate
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Chris Staab, Project Manager */RAI/*
Licensing Branch
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF FEBRUARY 3, 2011, MEETING, AND FOLLOW-UP
TELECONFERENCES ON FEBRUARY 15 AND 17, 2011, WITH
TRANSNUCLEAR, INC. (TN), REGARDING REVISION TO
CERTIFICATE OF COMPLIANCE NO. 9302 FOR MODEL NO.
NUHOMS-MP 197 TRANSPORTATION PACKAGE

Background. On February 3, 2011, a meeting was held in Rockville, Maryland, at the request of Transnuclear, Inc. (TN) to discuss a proposed revision to the Certificate of Compliance (CoC) for the NUHOMS-MP 197 transportation package and Request for Additional Information (RAI) issued to TN on November 19, 2010. Follow-up teleconferences were held on February 15 and 17, 2011. No regulatory decisions were made. The list of meeting and teleconference attendees is Enclosure 1. An agenda provided by TN is Enclosure 2. Non-Proprietary presentation slides are Enclosure 3. Proprietary presentation slides are Enclosure 4.

Discussion. The discussion addressed the items identified in the agenda.

- Background. The proposed changes in the application to amend the CoC are complex and include: 1) authorizing eleven dry shielded storage canisters (DSCs) as payloads, including failed fuel; 2) the proposed use of burnup credit, including limited use of the proprietary French fission product data to develop code-to-code correction factors based on benchmarking TN codes with other French codes; and 3) incorporating high burnup fuel into a new inner canister.
- Application Significance. TN's proposed amendment, if approved, will allow transportation of high burnup fuel using the NUHOMS-MP 197 transportation package. TN expects the MP-197 to be an integral part of the Nation's extended storage and transportation plans for spent nuclear fuel. Staff expects to have another meeting with TN to further discuss staff's request for additional information and to discuss possible success paths to issuing a CoC.
- Summary of Meeting, Follow-up Teleconference, Key Issue, and Options for CoC issuance. Key concerns in the RAI pertain to high burnup intact BWR fuel undergoing permanent plastic deformation under hypothetical accident conditions (HAC) for transportation.

- There may be an approach for allowing transportation of high burnup BWR fuel using burnup credit and ISG-19 reconfiguration. For high burnup PWR fuel, TN is able to demonstrate an adequate approach. The approach may require retrieving data using a National Lab or engaging international industry. Retrieving data could be a long process, on the order of 1 to 5 years. It may be possible for TN to more simply demonstrate, without new data, a bounding case using benchmarking. Regardless, the approach for BWR fuel would be a new approach never reviewed before by staff and would likely be treated as a new submittal.
- A different approach for demonstrating compliance to regulations for high burnup BWR fuel would be to demonstrate moderator exclusion with leak testing the entire inner canister in order to show 2 independent barriers (overpack and canister). This approach would probably require the fabrication of new equipment to safely leak test already stored canisters.
- A third approach may be, for BWR high burnup fuel is to limit the amount of dry storage time in the CoC prior to transport to address potential aging canister issues and hydride reorientation issues. TN would also have to adequately show by analysis the fuel cladding temperature during loading operations (drying and helium backfill) remains in a sufficient temperature range to preclude the possibility of hydride reorientation.
- Follow up actions. TN will target another public meeting in March 2011 to present a preferred approach for resolving the RAIs.

Docket No. 71-9302

TAC No. L24414

Enclosures: 1. Meeting Attendees
 2. Agenda
 3. Handouts (Non-Proprietary)
 4. Handouts (Proprietary)

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Distribution: NRC Attendees BWhite
Filename: G:/SFST/Staab/TN/2-3-2011 Meeting/Meeting Summary 2_3_2011.doc
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DATE	2/17/2011		2/17/2011		02/18/2011	

MEETING AND TELECONFERENCE PARTICIPANTS

Meeting Between the Nuclear Regulatory Commission
and Transnuclear, Inc.
February 3, 2011

Chris Staab	NRC/SFST
Doug Weaver (part time)	NRC/SFST
John Vera	NRC/SFST
Michele Sampson (part time)	NRC/SFST
Bob Einziger	NRC/SFST
David Pstrak (part time)	NRC/SFST
Jayant Bondre	TN
Peter Shih	TN
Steve Streutker	TN
Raheel Haroon	TN
Meraj Rahimi (follow-up teleconference 2/15/2011)	NRC/SFST
Drew Barto (follow-up teleconference 2/15/2011)	NRC/SFST
Bob Einziger (follow-up teleconference 2/17/2011)	NRC/SFST

AGENDA

Meeting Between the Nuclear Regulatory Commission
and Transnuclear, Inc.
February 3, 2011

1. Clarification of RAI 2-9
2. Break
3. Clarification of RAI 2-6 (Proprietary session)
4. Clarification of RAI 2-7 (Proprietary session)
5. Closing Remarks
6. Follow-up Teleconference 2-15-2011 – Options for Certificate of Compliance Issuance
7. Follow-up Teleconference 2-17-2011 – Options for Certificate of Compliance Issuance