

December 5, 2012

Mr. Don Shaw  
Licensing Manager  
Transnuclear, Inc.  
7135 Minstrel Way, Suite 300  
Columbia, MD 21045

SUBJECT: APPLICATION FOR AMENDMENT NO. 2 TO NUHOMS® HD CERTIFICATE OF COMPLIANCE NO. 1030 FOR SPENT FUEL STORAGE CASKS – REQUEST FOR SUPPLEMENTAL INFORMATION

Dear Mr. Shaw:

By letter dated September 28, 2012 (Agencywide Documents Access and Management System Accession No. ML12283A012), Transnuclear, Inc. submitted an amendment request to the Model NUHOMS® HD Certificate of Compliance No. 1030. The application proposes an increase in soluble boron concentration, clarification of certain Technical Specifications (TS), increase in fuel assembly weight by 25 pounds, revision of the control components definition, incorporation of Blended Low Enriched Uranium (BLEU) fuel material, an increase in shielding effectiveness of the Horizontal Storage Module (HSM-H) by adding dose reduction hardware, revision of licensing basis documents, and re-analysis for enhanced installation of certain system components. Staff performed an acceptance review of your application to determine if the application contains sufficient technical information in scope and depth to allow the staff to complete the detailed technical review.

This letter is to advise you that based on our acceptance review, the application does not contain sufficient technical information. The information needed to continue our review is described in the enclosure to this letter as a Request for Supplemental Information (RSI) and Observations. Staff included observations to allow you to start earlier on items containing the potential to be asked at a later date. Responses to observations are not required for staff to begin a detailed technical review.

In order to schedule our technical review, the response to the RSI should be provided by December 21, 2012. If the information described in the RSI is not received by this date, the application may not be accepted for review. This letter confirms our telephone conversation on November 28, 2012, with respect to the supplemental information needed and the date for your submittal.

If you have any questions regarding this matter, please contact me at (301) 492-3276.

Sincerely,

**/RA/**

Lucieann Vechioli, Project Manager  
Rules, Inspections, and Operations Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 72-1030  
TAC No. L24691

Enclosure: Request for Supplemental  
Information and Observations

If you have any questions regarding this matter, please contact me at (301) 492-3276.

Sincerely,

**/RA/**

Lucieann Vechioli, Project Manager  
Rules, Inspections, and Operations Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 72-1030  
TAC No. L24691

Enclosure: Request for Supplemental  
Information and Observations

Distribution: r/f MLombard

ADAMS: ML12341A037

G:\SFST\Vechioli\Licensing\NUHOMS Am.2 RSI letter. docx

<b>OFC:</b>	SFST	E	SFST		SFST		SFST		SFST		SFST	
<b>NAME:</b>	L Vechioli		J Smith		J Ireland		S Depaula for DPstrak		M Rahimi		C Araguas	
<b>DATE:</b>	11/29/12		11/29/12		11/29/12		11/29/12		11/29/12		11/30/12	
<b>OFC:</b>	SFST		SFST		SFST		SFST		SFST		SFST	
<b>NAME:</b>	W Wheatley		K Banovac for M Sampson		M Gordon							
<b>DATE:</b>	Via e-mail: 12/03/12		12/5/12		11/29/12							

**C = COVER**

**E = COVER & ENCLOSURE**

**N = NO COPY**

**OFFICIAL RECORD COPY**

## Request for Supplemental Information and Observations

Docket No. 72-1030

Application for Amendment 2 to NUHOMS® HD Certificate of Compliance 1030 for Spent Fuel Storage Casks

### **REQUEST FOR SUPPLEMENTAL INFORMATION**

#### **RSI-1:**

Provide additional justification that the 32PTH1 Dry Shielded Canister (DSC) documented in reference 10 of the Final Safety Analysis Report (FSAR) is bounding for the 32PTH DSC for all conditions of loading, storage and transfer. This amendment request indicates that the 32PTH1 optimum pitch configuration bounds the 32PTH double shear configuration at 2800 ppm boron concentration for the various basket types; however, there does not appear to be adequate explanation as to why this is the case. Please clarify why this assumption is applicable to both intact and damaged configurations.

This information is necessary to ensure compliance with 10 CFR 72.236(c).

#### **RSI-2:**

Provide an illustration of the confinement boundary and redundant sealing system in Figure 7-1 of the FSAR (e.g., solid and dashed lines to show the confinement boundary and redundant sealing system for the DSC).

A figure showing the confinement boundary and redundant sealing system is needed to accept the provision of redundant sealing of confinement systems.

This information is needed to determine compliance with 10 CFR 72.236(e).

### **OBSERVATIONS**

#### **4.0 Design Features – Technical Specifications**

Clarify if the purpose of the proposed changes to Section 4.3.1 of the Technical Specification is to introduce an exemption process for acceptance testing of neutron absorbers, into the Technical Specifications, to avoid the need for an amendment request.

This information is required for compliance with 10 CFR 72.146(a).

#### **5.0 Administrative Controls – Technical Specifications**

Clarify how the Horizontal Storage Module (HSM-H) concrete will be tested "during the fabrication process for elevated temperatures," to verify that the concrete is acceptable.

The language in Section 5.5 of the Technical Specifications, "Concrete Testing," is unclear and implies that the concrete will be tested at elevated temperatures during the fabrication (curing) process.

This information is required for compliance with 10 CFR 72.236(d).

## **7.0      Confinement Evaluation – Technical Specifications**

Clarify the two leak testing procedures of the confinement boundary in the Technical Specifications.

Under TS section 5.2.4 d), the applicant provided a reference for the leak testing procedures performed to the confinement boundary after loading the DSC. For the NUHOMS<sup>®</sup>-32PTH, the confinement boundary is tested through two procedures in order to meet the leak tight criteria per ANSI N14.5. The first procedure is performed to test the inner bottom cover plate, the canister shell and associated welds during fabrication, and the second procedure tests the remaining components of the confinement boundary. The first procedure performed to leak test the confinement boundary is not referred to in the TS or the Certificate of Compliance (CoC) although it is part of the acceptance tests required for approval of this application. The second procedure is referred to in T.S. 5.2.4 d), but only addresses the confinement boundary welds.

This information is needed to determine compliance with 10 CFR 72.236(j) and 72.236(l).