

January 24, 2018

Jayant Bondre,
Chief Technical Officer
TN Americas, LLC
7135 Minstrel Way, Suite 300
Columbia, MD 21045

SUBJECT: APPLICATION FOR AMENDMENT NO. 4 TO CERTIFICATE OF COMPLIANCE
NO. 1029 – SUPPLEMENTAL INFORMATION NEEDED

Dear Mr. Bondre:

By letter dated November 15, 2017, you submitted an application for amendment four to Certificate of Compliance No. 1029 (Docket No. 72-1029). Staff performed an acceptance review of the application to determine if it contained 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 requests for supplemental information (RSIs). In order to schedule our technical review, the RSI responses should be provided by February 23, 2018. If the RSI responses are not received by this date, the review of this application may be delayed. This letter confirms our phone call on January 22, 2018, with respect to the supplemental information needed. If you have any questions regarding this matter, please contact me at (301) 415-6877.

Sincerely,

/RA/

Chris Allen, Project Manager
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 72-1029
EPID No. L-2017-LLA-0390

Enclosure:
RSI

SUBJECT: APPLICATION FOR AMENDMENT NO. 4 TO CERTIFICATE OF COMPLIANCE
 NO. 1029 – SUPPLEMENTAL INFORMATION NEEDED, DOCUMENT
 DATED: JANUARY 24, 2018

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ADAMS Accession No.: ML18024A499

OFC:	SFM	SFM	SFM	SFM
NAME:	WAllen	WWheatley via E-Mail	ASotomayor via E-Mail	JIreland via E-Mail
DATE:	1/11/18	1/12/18	1/12/18	1/16/18
OFC:	SFM	SFM	SFM	
NAME:	YDiaz-Sanabria	TTate	JNguyen for MRahimi	
DATE:	1/17/18	1/17/18	1/24/18	

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Request for Supplemental Information
Docket No. 72-1029

By letter dated November 15, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17244A496), TN Americas, LLC submitted an application to amend Certificate of Compliance (CoC) No. 1029, for the Standardized Advanced NUHOM® System. The application proposes to add dose rate limits to the technical specifications. This RSI letter identifies information needed by the staff in connection with its review of the application. NUREG-1536, "Standard Review Plan for Transportation Packages for Radioactive Material," was used by the staff in its review of the application.

Each individual RSI describes information needed by the NRC staff to complete its review of the application to determine whether the applicant can be accepted for review.

Thermal

- 4.1 Provide the following maximum temperatures, or provide justification showing that it is unnecessary to report the following maximum temperatures: dry shielded canister (DSC) spacer disc, DSC guidesleeve or failed fuel can, DSC oversleeve, DSC support rod/spacer sleeve, DSC Boral sheet, and peak cladding temperatures.

The maximum temperatures for the following components were previously provided for the off-normal analysis in Table A.4.1-2 and for the accident analysis in Table A.4.1-3 respectively of the updated final safety analysis report (UFSAR): dry shielded canister (DSC) spacer disc, DSC guidesleeve or failed fuel can, DSC oversleeve, DSC support rod/spacer sleeve, DSC Boral sheet, and peak cladding temperature. However, Tables A.4.11.2-4 and A.4.11.2-5 of the application do not identify the maximum temperatures under off-normal and accident conditions respectively for these components. In addition, the applicant has not provided information demonstrating that these maximum temperatures are either irrelevant (e.g., the components are not used in the 24PT4 DSC), or the previously provided temperatures bound the temperatures associated with the current amendment. If the thermal models are updated in order to provide these maximum temperatures, the updated thermal models should also be provided.

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

- 4.2 Provide analyses, safety analysis report text or other information which shows how credit for the installed temperature monitoring system specified in TS 5.2.5(b) and (c) can be used for the 24PT1 DSC.

The analysis in Section A.4.11.2 of the application is for the 24PT4 DSC, and it is unclear how this analysis applies to the 24PT1 DSC. Also, while the applicant provided analytical results for the 24PT1-DSC in Table 4.4-12, "Technical Specifications 5.2.5.b Temperature Monitoring Limits for the 24PT1-DSC," the applicant did not provide the analysis to support the information presented in Table 4.4.-12. In addition, the brief paragraph on monitoring advanced horizontal storage module (AHSM) temperatures provided in UFSAR Section 4.4.2.5, "Monitoring of AHSM Temperature" does not discuss the 24PT1 DSC. The safety analysis report text that discusses the analysis supporting the use of the installed temperature monitoring system for the 24PT1 DSC, or if necessary any supporting analyses, should be provided to clearly identify how credit

for the installed temperature monitoring system specified in TS 5.2.5(b) can be used for the 24PT1 DSC.

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

Shielding

- 5.1 Provide calculations, computer input files or other information which justify adding the proposed dose rates to the technical specifications.

The applicant proposed dose rate limits of 50 mrem/hr on the AHSM front inlet bird screen and 10 mrem/hr on the AHSM door outside surface. However, the applicant did not provide information justifying that these dose rates limits are adequate. The applicant should provide all calculations and computer input files which substantiate implementing the proposed dose rate limits.

This information is necessary for the staff to evaluate compliance with 10 CFR 72.236(d).

Thermal Observation

- 4.1 Provide analyses, safety analysis report text or other information which demonstrates that the boundary conditions described in the application and the boundary conditions applied to the thermal model ensure bounding results for either a single or double module AHSM.

Table A.4.11.2-1, "AHSM Insolation," of the application states insolation is applied only to the AHSM roof and front wall. However, the application does not show how this modeling assumption is conservative for a single module AHSM where insolation should be applied to the AHSM back wall. In addition, Section A.4.11.2.3.3, "CFD Modeling," part D., "Specific Operating, Initial and Boundary Conditions – External Boundary Condition," of the application states radiation and free convection is applied to all exterior surfaces of the AHSM. However, the application does not show how these modeling assumptions are conservative for a double module AHSM where the back wall boundary conditions from the first AHSM should be applied to the second AHSM back wall. The applicant needs to provide either analyses, safety analysis report text, or both which demonstrates that the boundary conditions chosen provide bounding temperatures. If the thermal models are updated, the updated thermal models should also be provided.

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