

June 23, 2017

Mr. Jayant Bondre
Vice President and Chief Technical Officer
TN Americas LLC
7135 Minstrel Way, Suite 300
Columbia, MD 21045

SUBJECT: TN AMERICAS LLC, RESPONSE TO THE U.S. NUCLEAR REGULATORY
COMMISSION IN-OFFICE REVIEW AND NOTICE OF VIOLATION

Dear Mr. Bondre:

This letter refers to a U.S. Nuclear Regulatory Commission (NRC) assessment of your response (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17074A099), to a Severity Level IV notice of violation issued as a result of the NRC's in-office review conducted from April 2016 to December 19, 2016.

This violation involved a change you made to a method of evaluation (MOE) described in the Standard NUHOMS® System FSAR for CoC No. 1004 that was a departure from the MOE in which you should have sought NRC approval via an amendment to the CoC. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

We have determined that your response to the violation for departure from a MOE, 10 CFR 72.48(c)(2)(viii) is acceptable and that your response included the reason for the violation; corrective steps taken and the results achieved; corrective steps taken to avoid further violations; and the date when full compliance was achieved. At this time, we have no further questions regarding departure from a MOE. We will review the implementation of your corrective actions during a future NRC inspection to determine whether full compliance has been achieved and maintained.

In addition, during our review we noted that the values described in the 72.48 evaluation indicated that the peak cladding temperature (PCT) was below the design basis limit (3°F margin for the fuel cladding under storage conditions and a 5°F margin under transfer conditions). On April 18, 2017, in a teleconference (ADAMS Accession No. ML17125A218), we discussed quantification of uncertainties and conservatisms in the model and the need for you to provide assurance that the 752°F PCT design basis limit would not be exceeded. Subsequently, your response (ADAMS Accession No. ML17125A236) did not provide any additional quantitative information to address our questions. NRC expectation is that there is sufficient analysis and documentation to demonstrate that 72.48 criteria (c)(2)(vii) is satisfied. Specifically, note that 10 CFR 72.48(c)(2)(vii) states that the licensee/CoC holder shall obtain an amendment if the change would result in a design basis limit for a fission product barrier as described in the FSAR being exceeded or altered. We intend to review and verify your analysis regarding this issue as part of a future inspection. The review shall assess how conservatisms, uncertainties, and errors (including discretization error by determining the grid convergence

index following the procedures described in ASME V&V 20 “Standard for Verification and Validation in Computational Fluid Dynamics and Heat Transfer”) are accounted for in the thermal model, in a way that demonstrates the storage cask provides adequate heat removal capacity and gives assurance that the predicted PCT will not exceed your design limit of 752°F.

In accordance with 10 CFR 2.390 “Public Inspections, Exemptions, Requests for Withholding,” of the NRC's "Rules of Practice," a copy of this letter and any response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. If you should chose to respond, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21 “Protection of Safeguards Information: Performance Requirements.”

Please contact Mr. Earl Love at 301-415-7011, or via electronic mail at earl.love@nrc.gov, if you have any questions or need assistance regarding this matter.

Sincerely,

/RA/

Patricia Silva, Chief
Inspections and Operations Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 72-1004

TN AMERICAS LLC, RESPONSE TO THE NUCLEAR REGULATORY COMMISSION IN-OFFICE REVIEW AND NOTICE OF VIOLATION, DOCUMENT DATE: JUNE 23, 2017

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