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September 3, 2019  
E-54825

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

Subject: Revision 6 to Application for Amendment 16 to Standardized NUHOMS® Certificate of Compliance No. 1004 for Spent Fuel Storage Casks (Docket No. 72-1004)

Reference: Email: Norma Garcia Santos (NRC) to Don Shaw (TN) Re: Standardized NUHOMS® Certificate of Compliance No. 1004 - Request to Supplement Request for Additional Information after Telephone Call on 5/22/2019, dated June 11, 2019

This submittal provides responses to the supplemental Request for Additional Information (RAI) forwarded by the email referenced above, involving Amendment 16 to Certificate of Compliance (CoC) No. 1004 as part of the Pilot for Graded Approach for Certificate of Compliance Format, Content, and Selection Criteria. Each RAI item, and a TN response, is provided as Enclosure 2. Each RAI response has an impact section that describes any changes to the CoC, CoC appendices, or the updated final safety analysis report (UFSAR).

Enclosure 3 lists additional changes not associated with any of the RAI items. For example, Enclosure 3 Items 2 and 4 add CoC conditions and TS requirements associated with CoC 1004 renewal.

In carrying out the Graded Approach, TN used 99 evaluation forms to assess each CoC condition and Technical Specification (TS) requirement. All 99 forms are provided herein, as Enclosures 4 through 10. In cases where there were no changes to a particular evaluation form, the revision level indicated is the last revision level where a change was made. For those evaluations in which changes have been made, the revision level is indicated as Revision 6 and the changes in the body of the evaluation form are tracked so that they are clearly discernable.

Certain non-substantive changes are made to certain forms, such as removing reference to "Proposed Amendment 15" since Amendment 15 is now effective. In order to not distract reviewers, those changes are not tracked, and the form revision is not changed.

For information, a revised high-level summary of the results of the evaluation is given in Enclosure 11, and a list of the changes from CoC 1004 Amendment 15 to Amendment 16 is provided in Enclosure 18.

To assist in the NRC staff review, TN has provided in their entirety the proposed CoC, CoC Appendix A Inspections, Tests, and Evaluations (ITE), CoC Appendix B TS, and CoC Appendix C ASME Code Alternatives. Amendment 16 Revision 6 changes to the UFSAR are also provided in this submittal. Generally only the changed pages are included, but because certain portions of the UFSAR contain extensive changes (e.g., Chapter 10 and Chapter K.9), those portions are included herein in their entirety. Amendment 16 changes are indicated with italicized text and revision bars in the right-hand margin. The footers of the Amendment 16 UFSAR pages are annotated as "72-1004 Amendment No. 16, August 2019, Revision 6." Changed pages in the CoC, the CoC appendices, and the UFSAR are annotated with the RAI number or Enclosure 3 item number which necessitated the changes.

The revised CoC is provided in Enclosure 12, the ITE in Enclosure 13, the TS in Enclosure 14, the ASME Code Alternatives in Enclosure 15, and the UFSAR changed pages in Enclosure 16. Portions of the Enclosure 16 UFSAR pages include proprietary information, which may not be used for any purpose other than to support the NRC staff's review of the application. In accordance with 10 CFR 2.390, TN Americas LLC is providing an affidavit (Enclosure 1), specifically requesting that this proprietary information be withheld from public disclosure. Enclosure 17 provides a public version of the Enclosure 16 UFSAR pages.

This submittal is being provided as an electronic submission, using the optical storage media (OSM) provision from Section 4 of the NRC Guidance for Electronic Submissions to the NRC. Accordingly, we have included a Document Components listing and OSM #1 and OSM#2 listings at the end of this cover letter.

Should the NRC staff require additional information to support review of this application, please do not hesitate to contact Doug Yates at 434-832-3101, or me at 410-910-6859.

Sincerely,



Prakash Narayanan  
Chief Technical Officer

cc: Norma Garcia Santos (NRC SFM), as follows:

- One paper copy of this cover letter
- Six computer disks, each containing this cover letter and Enclosures 1 through 18 (i.e., OSM #1 disk)
- Six computer disks, containing courtesy copies of complete UFSAR files changed by CoC 1004 Amendment 16, based on UFSAR Revision 18 and showing all Amendment 16 changes

Enclosures:

1. Affidavit Pursuant to 10 CFR 2.390
2. RAIs and Responses
3. Additional Changes Not Associated with the RAIs
4. Evaluation Forms for CoC 1004 CoC Items
5. Evaluation Forms for CoC 1004 TS Section 1 Items
6. Evaluation Forms for CoC 1004 TS Section 2 Items
7. Evaluation Forms for CoC 1004 TS Section 3 Items
8. Evaluation Forms for CoC 1004 TS Section 4 Items
9. Evaluation Forms for CoC 1004 TS Section 5 Items
10. Evaluation Forms for CoC 1004 TS Tables and Figures
11. Amendment 16 High-Level Evaluation Results Summary Table
12. Certificate of Compliance No. 1004 Proposed Amendment 16 CoC
13. Certificate of Compliance No. 1004 Proposed Amendment 16 CoC Appendix A, Inspections, Tests and Evaluations
14. Certificate of Compliance No. 1004 Proposed Amendment 16 CoC Appendix B, Technical Specifications
15. Certificate of Compliance No. 1004 Proposed Amendment 16 CoC Appendix C, ASME Code Alternatives
16. CoC 1004 Amendment 16, Revision 6 UFSAR Changed Pages (Proprietary Version)
17. CoC 1004 Amendment 16, Revision 6 UFSAR Changed Pages (Public Version)
18. List of the Changes from CoC 1004 Amendment 15 to Amendment 16

**Document Components:**

001 Public Cover Letter.pdf, 1,029,054 bytes  
002 Public 1004 AMD 16 Rev 6 Encl 01 Affidavit.pdf, 716,646 bytes  
003 Public 1004 AMD 16 Rev 6 Encl 02 RAIs and Responses.pdf, 148,309 bytes  
004 Public 1004 AMD 16 Rev 6 Encl 03 Additional Changes Not Associated with RAIs.pdf, 107,792 bytes  
005 Public 1004 AMD 16 Rev 6 Encl 04 Assess CoC.pdf, 315,749 bytes  
006 Public 1004 AMD 16 Rev 6 Encl 05 Assess TS-Sect 1.pdf, 122,019 bytes  
007 Public 1004 AMD 16 Rev 6 Encl 06 Assess TS-Sect 2.pdf, 198,732 bytes  
008 Public 1004 AMD 16 Rev 6 Encl 07 Assess TS-Sect 3.pdf, 148,882 bytes  
009 Public 1004 AMD 16 Rev 6 Encl 08 Assess TS-Sect 4.pdf, 518,497 bytes  
010 Public 1004 AMD 16 Rev 6 Encl 09 Assess TS-Sect 5.pdf, 256,804 bytes  
011 Public 1004 AMD 16 Rev 6 Encl 10 Assess TS-Tbls Figs.pdf, 375,155 bytes  
012 Public 1004 AMD 16 Rev 6 Encl 11 Summary Table.pdf, 175,538 bytes  
013 Public 1004 AMD 16 Rev 6 Encl 12 Proposed CoC.pdf, 1,042,974 bytes  
014 Public 1004 AMD 16 Rev 6 Encl 13 Proposed ITE.pdf, 992,654 bytes  
015 Public 1004 AMD 16 Rev 6 Encl 14 Proposed TS.pdf, 8,900,830 bytes  
016 Public 1004 AMD 16 Rev 6 Encl 15 Proposed ASME Code Alternatives.pdf, 1,253,257 bytes  
017 SUNSI 1004 AMD 16 Rev 6 Encl 16 UFSAR Changed Pages.pdf, 17,235,372 bytes  
018 Public 1004 AMD 16 Rev 6 Encl 17 UFSAR Changed Pages.pdf, 17,234,896 bytes  
019 Public 1004 AMD 16 Rev 6 Encl 18 List of Changes from Amd 15 to Amd 16.pdf, 184,176 bytes

**OSM#1 (Entire Submittal) (computer disk):**

001 Public Cover Letter.pdf, 1,029,054 bytes  
002 Public 1004 AMD 16 Rev 6 Encl 01 Affidavit.pdf, 716,646 bytes  
003 Public 1004 AMD 16 Rev 6 Encl 02 RAIs and Responses.pdf, 148,309 bytes  
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005 Public 1004 AMD 16 Rev 6 Encl 04 Assess CoC.pdf, 315,749 bytes  
006 Public 1004 AMD 16 Rev 6 Encl 05 Assess TS-Sect 1.pdf, 122,019 bytes  
007 Public 1004 AMD 16 Rev 6 Encl 06 Assess TS-Sect 2.pdf, 198,732 bytes  
008 Public 1004 AMD 16 Rev 6 Encl 07 Assess TS-Sect 3.pdf, 148,882 bytes  
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**OSM#2 (Pubic Portions) (computer disk):**

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002 Public 1004 AMD 16 Rev 6 Encl 01 Affidavit.pdf, 716,646 bytes  
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