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December 22, 2021

ATTN: Document Control Desk,
Director, Division of Spent Fuel Management,
Office of Nuclear Material Safety and Safeguards,
U.S. Nuclear Regulatory Commission,
Washington, DC 20555-0001

Dear Director:

Orano TLI (formerly DAHER-TLI) hereby submits an application for amendment of license USA/9342/AF-96 for Model No. Versa-Pac. The Safety Analysis Report enclosed in this submittal includes content that is being withheld from public disclosure because it contains information proprietary to Orano TLI. The affidavit for withholding from public disclosure is documented in LTR-20000-160-02, submitted jointly with this application. A redacted version of the Safety Analysis Report is also enclosed in this submittal.

Orano TLI is seeking an addition to the NRC Certificate of Compliance (CoC) for the Versa-Pac package to allow for the use of a licensed component labeled the 'High-Capacity Basket' (HCB). The HCB consists of an aluminum frame that holds two of the licensed 5-inch pipe components. The basket also includes insulation and neutron moderating materials used to isolate the 5-inch pipes from each other. The proposed contents for the 5-inch pipes loaded into the HCB are uranium compounds enriched to up to 20 wt%^{235}U with a limit on hydrogenous materials, similar to the hydrogen limited contents already in the Versa-Pac certificate. All uranium compounds permissible in the Versa-Pac are included as contents for the HCB, with the exceptions of uranium metal, uranium hexafluoride, and uranium compounds containing hydrogen. To supplement this content addition, a new licensing drawing is included for the HCB and revisions have been made to the VP-55 and 5-inch pipe licensing drawings. Additionally, Orano TLI requests CoC paragraph 5.(a)(2) be revised to "the version of ANSI N14.1 effective at the time of fabrication". Below is a summary list of the substantial changes requested to the Versa-Pac NRC CoC:

Requested Versa-Pac NRC CoC Changes:

5.(a)(2) Change ANSI N14.1 reference to "version effective at the time of fabrication".
5.(a)(3) Update drawings VP-55-LD to Rev. 5 and VP-55-2R to Rev.1.
5.(a)(3) Add drawing VP-55-HCB-LD, Rev.0.
5.(b)(2) Revise Table 3A to allow two 5-inch pipes with up to 20 wt% material with the HCB.

To support the request for the CoC changes listed above, the following is a general description of Revision 13 of the Versa-Pac SAR. Full details can be found in SAR Rev 13, Record of Revisions. Note that in all documents, the DAHER-TLI logo is changed to the Orano TLI logo.

Licensing Drawings

- VP-55-LD, Revision 5
  - No significant changes to the Versa-Pac design.
  - Material for Parts FI and FJ changed to "Plastic".
  - Added weld MT-12 between parts BB-1 and FK on Section D-D. This is the same weld already shown for the support structure as MT-7 on Section E-E, explicitly shown for the inner container parts.

- VP-55-2R, Revision 1
  - No significant changes to 5-inch pipe design. Relocated parts list to top of sheet.
  - Note 1 states that the Pipe container is a Safety Category A component.
  - Note 4 clarifies that the material specifications are minimum specifications.
  - Note 5 lists tolerance for the pipe dimensions and Note 6 clarifies that the listed pipe length is a maximum, i.e., shorter pipes are permissible.

- VP-55-HCB-LD, Revision 0
  - New High-Capacity Basket drawing. Initial issue.

Section 1

- Added High-Capacity Basket content limit to Table 1-4 and descriptionaq of the content configuration to Sections 1.2.2, 1.4.8, and 1.4.9
- Noted in Section 1.1 that 1S and 2S cylinders must be compliant with the version of the ANSI N14.1 standard effective at the time of fabrication and updated reference 3 to "Latest revision".
- Revised Note 1 under Section 1.4.2 to not specify the type of paint for outer coat.
- Added FAR 25.853 as an acceptable flame retardance specification requirement. This specification is used for testing General Plastics Last-A-Foam FR-3700 foam for flame retardancy.

Section 2

- Added Appendices 2.12.2 and 2.12.3 to document the HCB LS-DYNA and ANSYS stress analyses

Section 3

- Added Appendix 3.5.4 for a supporting thermal analysis for the High-Capacity Basket.

Section 6

- Added a supplemental criticality analysis for the High-Capacity Basket and a supporting USL equation for this analysis. Contents and analyses provided in Sections 6.2.6, 6.4.6, 6.5.6, and 6.6.6. The added data for the HCB USL is incorporated into Section 6.8.

Section 7

- Added operational requirements of the High-Capacity Basket.

Section 8

- Added acceptance and maintenance requirements of the High-Capacity Basket.

To support customer scheduling obligations, we request the approval of the certificate revision by the end of August 2022. Orano TLI is committed to providing timely responses to any proposed questions to support this timing.

Thank you for your attention to this license application for the Versa-Pac. This report is being submitted in accordance with 10CFR71.1, Communications and records. The enclosures of this report are being submitted through the EIE system.

A draft Certificate of Compliance with recommended revisions and sample input/output files will be provided separately to the NRC Project Manager, Nishka Devaser. Please address any questions or comments to the undersigned.

Sincerely,

Digitally signed by Philip Sewell
Date: 2021.12.22 11:42:15 -05'00'

Philip Sewell
Principal Nuclear Engineer
Orano TLI

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Non-Proprietary Enclosures:

Description:	File Name:
Affidavit to Withhold Proprietary Information	LTR-20000-160-02.pdf
SAR Revision 13, Non-Proprietary	VP SAR Rev 13-NP.pdf

Proprietary Enclosures:

Description:	File Name:
SAR Revision 13, Proprietary	VP SAR Rev 13-P.pdf