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Your ref: Docket No. 71-9297
Our ref: LTR-LCPT-24-12

April 30, 2024

Subject: Renewal Application Request for USA/9297/AF-96 for Model No. Traveller STD, XL, and VVER Packages

References: (1) Docket 71-9297
(2) Certificate of Compliance USA/9297/AF-96, Rev. 13

Dear Director,

Westinghouse hereby submits a consolidate license application for 5-year renewal and content amendment for license USA/9297/AF-96 Model No. Traveller STD, XL, and VVER Packages. The application includes Revision 16 of the Safety Analysis Report (SAR) to amend contents for a new 8-inch loose Rod Pipe container and revisions to support details of previously approved contents. Enclosures of this letter include non-proprietary, redacted and proprietary versions of the SAR Rev 16. In conformance with the requirements of 10 CFR Section 2.390, as amended, of the Nuclear Regulatory Commission's regulations, we are enclosing with this submittal an Application for Withholding Proprietary Information from Public Disclosure and an Affidavit, AW-24-023 (Enclosure 1).

Background

SAR Rev 16 is a consolidation of all prior revisions of the SAR. All pages, tables, and figures have been re-numbered sequentially, requiring format edits, that are updated throughout the text with no revision bar marking. The entirety of the SAR has been updated to revision 16, thus revision bars only mark changes made to support this application. A new 8-inch Rod Pipe container has been added to increase the loose fuel rod shipping capacity per package by inclusion of a new drawing, and structural and criticality assessment. The maximum gross package and content weights have not been revised for the 8-inch Rod Pipe configuration. To accommodate the combination of accident tolerant fuel (ATF) clad features previously approved in the license, material information and conclusions are added to the cladding material evaluation in the SAR. Additional changes made to the SAR Revision 16 consolidates all Competent Authority recommended changes included further details in Chapter 7 operations. However, the packaging design has been neither changed nor modified as a result of the amendment request. Westinghouse has a quality assurance program, approved by the Commission that satisfies the provisions of Subpart H (Quality Assurance) of Part 71. Further quality assurance program details have been summarized in Chapter 8. The revised SAR Rev 16 is provided as proprietary Enclosure 3 and non-proprietary Enclosure 2. To assist in a timely review, each change for SAR Rev 16 is detailed in Appendix A of this letter.

Request

Westinghouse requests a 5-year renewal and content amendment for license USA/9297/AF-96 amendment approval by end of July 2024 to facilitate subsequent international validations required for spring 2025 shipments of requested amended contents. Westinghouse also requests that current NRC Certificate of Compliance (CoC) Revision 13 expiration is extended one-year beyond the date of issuance of the new certificate. The CoC Revision 13 is the basis for DOT Certificate Revision 10, the competent authority approval for international validations.

Finally, it is requested that this application be reviewed for the Joint United States – Canada process for package approval and validation, in accordance with NUREG-1886. The current Canadian endorsement for the Traveller STD, XL and VVER Package is CDN/E216/-96.

One copy of the amendment application is submitted electronically via NRC Electronic Information Exchange (EIE) system and emailed to the Project Manager, Pierre Saverot. Additional electronic or hard copy submissions are available upon request. Should you have any questions, or require additional information, please contact me at the addressed information.

Best regards,

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Tanya Sloma-DeLosier
Package Licensing and Technology Manager
Licensing, Compliance and Package Technology
Nuclear Fuel Transport
Westinghouse Electric Company LLC

Enclosures:

Non-Proprietary Enclosure:

1. Affidavit AW-24-023, "Affidavit for Submittal of LTR-LCPT-24-12, "Renewal Application Request for USA/9297/AF-96 for Model No. Traveller STD, XL, and VVER Packages," dated 30 April 2024.
2. WCAP-07109297-NP Attachment
Safety Analysis Report Revision 16 Application for Certificate of Compliance for the Traveller PWR Fuel Shipping Package, NRC Certificate of Compliance USA/9297/AF-96
(SAR Revision 16, dated April 2024)

Proprietary Enclosure:

3. WCAP-07109297-P Attachment
Safety Analysis Report Revision 16 Application for Certificate of Compliance for the Traveller PWR Fuel Shipping Package, NRC Certificate of Compliance USA/9297/AF-96
(SAR Revision 16, dated April 2024)

cc:

W. Stilwell, Westinghouse-USA
P. Saverot, NRC

Appendix A – Detailed List of SAR Revision 16 Changes

Style and Composition

This is a consolidated SAR for 5-year renewal request. All pages, tables, and figures have been re-numbered sequentially, requiring format edits, that are updated throughout the text with no revision bar marking, as there is no impact to the content or text of the safety case. The entirety of the SAR has been updated to revision 16, and thus revision bars only mark changes made within this revision. The following are content changes marked by revision bars throughout the text:

FRONT MATTER

- Record of Revisions updated with changes in SAR Rev 16.
- List of effective pages removed, as every page is renumbered for the consolidated application.

CHAPTER 1 – General Information

- Throughout chapter and summarized in Section 1.1, differentiated between 6-inch and new 8-inch Rod Pipe designs and added a row to Table 1-1 for the 8-inch Rod Pipe CSI.
- 1.2.1 Noted that the term Rod Pipe pertains to both the 6-inch and 8-inch designs, unless one is specifically stated.
- 1.2.1.5.5 Added description of the 8-inch Rod Pipe and new Figure 1-17.
- 1.2.2 Content changes for the addition of the 8-inch Rod Pipe and allowance of cladding with chromium coating and OZL.
- 1.3.2 Added the new 8-inch Rod Pipe Licensing Drawing 10078E26, Rev. 1.
- Traveller Type A Licensing Drawings 10004E58, Rev. 10 issuance to correct material typographical error discussed with NRC in January 2023 under the USA/9380/B(U)F-96 application. Components have always been designed, tested, and fabricated to the corrected material requirements, meeting regulatory requirements as previously reviewed by NRC staff. The drawing materials are a typographical error, and there is no change in the design or safety of the package.

CHAPTER 2

- 2.11.1 Revision for addition of 8-inch Rod Pipe, clarifying the maximum content weight and maximum package gross weight is not changed by the new pipe configuration.
- 2.12.1 Updated references to be inclusive of intext references.
- 2.12.9 and subsections additional details added for combination of accident tolerant fuel cladding features of chromium coating and Optimized ZIRLO liner, and analysis of Alloy 2 with chromium coating. No change to comparison method of cladding energy absorption capability.
- 2.12.10 New appendix for the two Rod Pipe structural evaluations.

CHAPTER 3

- 3.1.1 Clarified the thermal evaluation of fuel assembly bounds the Rod Pipe configuration.
- 3.2.1 and 3.2.1.1 Updated for combined allowance of cladding with chromium coating and OZL.

CHAPTER 4

No changes

CHAPTER 5

No changes

CHAPTER 6

All revisions are marked by change bars, as several sections are revised for new contents, and not detailed in the following list.

- Revised text throughout to differentiate between 6-inch and 8-inch Rod Pipe components.
- New contents added throughout summary sections and supporting detailed analysis sections.
 - Added new content results for 8-inch rod pipe.
 - Added new center fuel rod position sensitivity study for Group 1, 17 bin 1.
- 6.2 Clarified the allowance of cladding with chromium coating and OZL for each fuel group.

CHAPTER 7

- 7.0 Noted that the term “Rod Pipe” applies to both 6-inch and 8-inch components
- 7.1.1 Added to the Note under (b) to clarify that plutonium and fission products may be present as limited by the Unirradiated definition or less than a total A2.
- 7.1.1.3 and 7.1.1.5 Added item to check Rod Pipe
- 7.1.2 for Loading Contents and 7.2.2 for Unloading Contents have been revised to include additional details, safety steps, and new subsections for Rod Pipe contents

CHAPTER 8

- 8.0 Addition of quality program description and implementation.
- 8.1.1, 8.1.2, 8.2, and 8.2.6 Added Rod Pipe component to requirements.