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Your ref: Docket No. 71-9297
Our ref: LTR-LCPT-15-11

Subject: Amendment Request Application USA/9297/AF-96 for Model No. Traveller Standard and XL Packages

May 1, 2015

References: (1) Docket 71-9297
(2) Certificate of Compliance USA/9297/AF-96, Rev 7
(3) Canadian Nuclear Safety Commission Endorsement CDN/E216/-96, (Rev 5)

Dear Director,
An application is hereby submitted to amend the license USA/9297/AF-96 for Model No. Traveller Standard and XL Packages. This amendment is submitted to amend the license with new VVER fuel assembly contents in a new Traveller VVER package design. In February, the VVER design was presented to the NRC staff to provide a preliminary understanding of the design, analyses, and importance of the project. The changes to the SAR license application are documented as SAR Revision 12, and SAR Revision 12 is provided as enclosure to this letter.

Background
VVER fuel assemblies are a hexagonal fuel design for use in a light water reactor. Westinghouse has been using the MCC-5 shipping package (USA/9239/AF) to deliver VVER fuel assemblies to European countries. As an AF package design, new manufacturing of the MCC-5 package is not permitted. Hence the Traveller VVER shipping package was developed to ship VVER type fuel assemblies. This package type is required due to an increased requirement for VVER type fuel from a Westinghouse customer. This is a very critical delivery for Westinghouse and the nuclear industry.

Request
Westinghouse requests an amendment to the license to include the Traveller VVER packaging. The first delivery is scheduled for early 2016 and will require validation by multiple foreign competent authorities. Therefore, we request the revision to the certificate by the end of November 2015 or at the earliest possible date.

The addition of the Travller VVER makes three types of packagings in the Traveller family: Standard, XL, and VVER. In general, the Traveller VVER Outerpack is identical to the Traveller XL Outerpack except that the shock mounts on the VVER are slightly smaller and stiffer. The Traveller VVER Outerpack utilizes a bolted bracket for attachment to the Clamshell versus just a bolt for the Traveller XL. The VVER Clamshell is similar in build to the standard Clamshell, however it has been designed for the transport of hexagonal fuel assemblies. The hexagonal VVER Clamshell consists of an aluminum strong back and two aluminum panel doors, bottom and top end plates, and a similar multi-point cammed latch closure mechanism as is used in the standard Clamshell. The VVER Clamshell also, like the standard Clamshell, uses piano type hinges to connect each panel door to the strong back, and neutron absorber

plates are likewise installed on each side of the VVER Clamshell using threaded fasteners. The strong back and bottom plate are also lined with a cork rubber pad to prevent damage during normal transport conditions. The VVER Top Plate also utilizes a combination of locking mechanisms and tongue and groove joints to fasten itself to the VVER Clamshell. The main doors of the VVER Clamshell operate in the same manner as the standard Clamshell, and are secured with identical locking mechanisms. Lateral and axial clamping mechanisms exist to provide restraint for the contents during all transport conditions. A circular clamping plate provides axial restraint at the top of the fuel assembly. Rubber pads are positioned at axial locations along the inside of the VVER Clamshell doors to restrain lateral movement.

Additional detail of the Traveller-VVER packaging with VVER fuel assembly contents is included in each chapter of the SAR as necessary for design review. Chapters 1, 2, 3 and 6 contain majority of the content addition.

SAR Revision

All requests are consolidated into the SAR Revision 12. The page changes for the amendment are marked as Revision 12 and the revised portion of the page is marked using a "change indicator" consisting of a bold vertical line drawn in the margin opposite the binding margin. Changes are also noted in the application *Record of Revisions* and *List of Effective Pages*. The revised SAR Revision 12 is provided as enclosure.

Revisions to the SAR include the following:

- Addition of the Traveller-VVER packaging with VVER fuel assembly contents in each chapter as required for design approval. Chapters 1, 2, 3 and 6 contain majority of the content addition (including Sections 1.2.1.1.3 and 1.2.1.3, Section 2.12.8, Section 3.3.1.1, and Section 6.10.11).
- Addition of Traveller VVER licensing drawings (Section 1.4.2)
- Addition of tie-down detail calculations (Section 2.12.3.2.3).
- Revision of text to clarify acceptable seal materials; however no changes to materials made (Chapter 2 and Chapter 8).
- Minor style and composition, non-technical edits made throughout SAR to clarify text.

Certificate Revision

Details of the Traveller VVER packaging which match the current certificate format are provided in the following sections:

- Package weights and dimensions: Section 1.2.1.1.3
- Drawings: Section 1.4.2
- VVER fuel assembly parameters: Section 6.10.11.4.1.1.1, Table 6-45
- VVER polyethylene packing material limit: Section 1.2.3.2
- Criticality Safety Index: Section 6.1.3 and 6.10.11.2.3
- Certification Section 6 (requirements of Subpart G of 10 CFR Part 71) remain applicable to all Traveller family packagings

Additionally, Westinghouse requests to amend the Certificate of Compliance to allow continued use of Revision 7 for one year beyond the new certificate issue date. The current US DoT Competent Authority Certification (CAC) references NRC CoC, Revision No. 7, and international certificates are requiring increasingly more review time.

Westinghouse would like to note, as introduced in the February NRC meeting, that is a very critical delivery for Westinghouse and the nuclear industry. Deliveries are intended to start in early 2016. We would like the staff to know we are committed to assisting the review of the NRC staff, and are available

for meetings and discussions at any time. Please do not hesitate to contact us for any additional information.

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 and Traveller XL Package is CDN/E216/-96, (Rev 5).

Westinghouse has a quality assurance program, approved by the Commission, which satisfies the provisions of subpart H (Quality Assurance) of Part 71. Further, Westinghouse complies with the terms and conditions of the applicable requirements of subparts A (General Provisions), G (Operating Controls and Procedures), and H (Quality Assurance) of Part 71.

One copy of the amendment application is submitted electronically via EIE system and emailed to the prior 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 either by telephone at (301)931-5301 or by email at sloma1t@westinghouse.com (please note the update in email address), or contact the Nuclear Fuel Transport Director, Wes Stilwell, directly at (803)647-3438 or by email at stilwewe@westinghouse.com.

Best regards,
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Tanya Sloma
Licensing, Compliance and Package Technology
Nuclear Fuel Transport
Westinghouse Electric Company LLC

Enclosure:
1. SAR Revision 12, License Application for Certificate of Compliance No. USA/9297/AF-96 for Model No. Traveller Standard and XL Packages, Safety Analysis Report (SAR Revision 12, dated March 2015)

File name	Description	File Size (MB)	File Date
Traveller_SAR_Rev12_Front Matter.pdf	SAR Rev. 12, Front Matter	0.5	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec1.pdf	SAR Rev. 12, Chapter 1	7.5	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec2_reduced.pdf	SAR Rev. 12, Chapter 2	6.1	5/1/2015 3:57PM
Traveller_SAR_Rev12_Sec3_reduced.pdf	SAR Rev. 12, Chapter 3	3.0	5/1/2015 3:56PM
Traveller_SAR_Rev12_Sec4_NoChanges.pdf	SAR Rev. 12, Chapter 4	0.07	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec5_NoChanges.pdf	SAR Rev. 12, Chapter 5	0.08	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec6.pdf	SAR Rev. 12, Chapter 6	3.0	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec7_NoChanges.pdf	SAR Rev. 12, Chapter 7	0.09	5/1/2015 2:27PM
Traveller_SAR_Rev12_Sec8.pdf	SAR Rev. 12, Chapter 8	0.1	5/1/2015 2:27PM

cc: W.E. Stilwell, Director, Nuclear Fuel Transport

*Electronically approved records are authenticated in the Electronic Document Management System.