



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

October 15, 2024

MEMORANDUM TO: Cinthya Román, Deputy Director
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

FROM: Pierre Saverot, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF AUGUST 26, 2024, MEETING WITH HOLTEC
INTERNATIONAL.

A handwritten signature in black ink, appearing to read "P. Saverot", is located to the left of the signature text.

Signed by Saverot, Pierre
on 10/15/24

Background

On August 26, 2024, an Observation Public Meeting was held by teleconference between the U.S. Nuclear Regulatory Commission staff and representatives from Holtec International (Holtec, or the applicant) to discuss a pending amendment request for the Model No. HI-STAR 80 package.

This Observation Public Meeting was noticed on July 31, 2024 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML24212A098). The attendance list and the publicly available presentation slides are provided as Enclosure Nos. 1 and 2, respectively.

Discussion

Holtec requested this meeting to present enhancements and design modifications to the Model No. HI-STAR 80 package (Docket No. 71-9374), in particular with new F12P-CBS and F32B-CBS basket designs and the inclusion of different basket anodization options and corresponding heat loads. In addition, the maximum weight of a pressurized-water reactor (PWR) fuel assembly weight is increased to 800kg.

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The HI-STAR 80 can ship either 12 PWR or 32 boiling-water reactor (BWR) fuel assemblies with a maximum heat load of either 50 kW (PWR) or 54 kW (BWR). Reactor-related waste in a solid form (up to 5000kg) can be also transported in a “Non-fuel Waste Basket” and secondary packaging and or dunnage is permitted.

The amendment request review will include most technical disciplines, i.e., (i) structural because of the increased weight of PWR fuel assemblies and the CBS-style baskets, (ii) thermal to evaluate all configurations with the ANSYS-Fluent CFD Code and using the same methodology used as that currently approved in the safety analysis report, (iii) containment because the HI-STAR 80 with CBS baskets has a slightly higher cavity free volume, (iv) shielding due to the increased weight of fuel assemblies, the CBS-style baskets, the assemblies with larger number of steel rods, and (v) criticality to demonstrate that the package with the CBS basket meets all criticality safety requirements.

Holtec intends to submit an application in September 2024 and will request approval by February 2026.

Staff said it understood well the licensing approach as presented and had a few specific questions on each technical discipline during the proprietary session, including the need to present a grid sensitivity study for this amendment, the justification for not performing hypothetical accident conditions thermal analyses when the cell walls are thinner than those in the previous approved basket design, the containment boundary and the helium leak test conditions/criteria, the calculation of the free volume within the package cavity to verify that the internal pressure of the package (with a CBS design) will be bounded by that of the previously approved package without a CBS design, and the demonstration that true strain (or stress) within basket components does not exceed the maximum uniform elongation strain (i.e. true ultimate strain).

No regulatory commitments were made during this meeting.

Docket No. 71-9374
EPID L-2024-LLA-0096

Enclosures:

1. Meeting Attendees
2. Presentation Slides

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DOCUMENT DATE: October 15, 2024

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**ADAMS Accession Nos.: ML24276A171 (Pkg); ML24276A173 (Ltr & Encl1);
ML24276A172 (Encl2)**

OFFICE	NMSS/DFM	NMSS/DFM	NMSS/DFM	NMSS/DFM
NAME	PSaverot	WWheatley	YDiaz-Sanabria	PSaverot
DATE	10/02/2024	10/03/2024	10/09/2024	10/15/2024

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**Meeting Between HOLTEC International
and the
U.S. Nuclear Regulatory Commission
August 26, 2024
Meeting Attendees**

The U.S. Nuclear Regulatory Commission

Pierre Saverot
Bharat Patel
Jennifer Gutierrez
Charles Stanko
Jimmy Chang
Jorge Solis
James Drabble
Neil Sheehan

Holtec

Alexander Wulff
Debu Majumdar
Abrar Mohammad
Kim Manzione
Chuck Bullard
Emmanuel Chirayath
Giancarlo Delfini
Joe Andraos
Matt Naylor
Nazar Yaris
Stefan Anton
Khalil Wise

PUBLIC

Carlyn Greene