



July 29, 2021

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

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Docket No.: 71-9374 (HI-STAR 80 Model)
EPID No.: L-2021-LLA-0130

Subject: Submittal of Licensing Amendment Request 9374-2 for HI-STAR 80 Transportation Package

Dear Mr. Saverot:

Holtec International herewith submits License Amendment Request (LAR) 9374-2 proposing certain changes to the HI-STAR 80 Certificate of Compliance (CoC) Number 71-9374 Revision 1 and its corresponding supporting Safety Analysis Report (SAR) Revision 3. A complete and updated SAR (Revision 4) is provided with this LAR. The SAR's Revision Summary Log section includes information on the SAR's revision status and configuration control.

This LAR proposes the addition of quivers to the HI-STAR 80 approved contents, allowance of additional loading patterns, along with several other proposed enhancements to the HI-STAR 80 SAR. The respective enhancements to the safety analysis are also completed to support these changes and included with this submittal. All significant enhancements are identified in the summary of proposed changes (SOPC) provided in Enclosure 1 to facilitate the staff's review. The SOPC includes reasons and justifications for various safety significant changes.

Enclosure 2 contains Holtec's proposed changes to the Certificate of Compliance (CoC) for the staff's convenience. Enclosures 3 and 4 contain the Safety Analysis Report (SAR) for the HI-STAR 80 Package (both proprietary and non-proprietary versions).

Enclosures 5 through 12 contain various supporting documents such as calculation packages, other technical reports, and design documentation. Supporting documents which were submitted under previous licensing action under Docket No. 71-9374 and that have not been revised are not included in this submittal.



Enclosure 13 is an affidavit prepared in accordance with 10 CFR 2.390 requesting that Enclosures marked proprietary be withheld from public disclosure due to their proprietary nature.

If you have any questions, then please contact me at 856-797-0900, ext. 3931.

Sincerely,

Brian Seawright
Licensing Engineer
Holtec International

cc: (letter only)
John McKirgan, USNRC
Kim Manzione, Holtec

Enclosures:

- Enclosure 1: Summary of Proposed Changes (SOPC) for HI-STAR 80 LAR 9374-2
- Enclosure 2: Holtec Proposed CoC 71-9374 Revision 2 for the HI-STAR 80 Package (Holtec Non-Proprietary Information)
- Enclosure 3: HI-STAR 80 Safety Analysis Report (SAR), HI-2146261, Revision 4 (Holtec Proprietary Information)
- Enclosure 4: HI-STAR 80 Safety Analysis Report (SAR), HI-2146261, Revision 4 (Holtec Non-Proprietary Information)
- Enclosure 5: Finite Element Analysis of HI-STAR 80 Transport Package Drop Accidents, HI-2167023, Revision 5 (Holtec Proprietary Information)
- Enclosure 6: Structural Calculation Package for HI-STAR 80, HI-2156553, Revision 8 (Holtec Proprietary Information)
- Enclosure 7: Thermal Evaluations of HI-STAR 80 in Transport, HI-2156468, Revision 8 (Holtec Proprietary Information)
- Enclosure 8: Effective Thermal Properties of Fuel Assemblies, HI-2146291, Revision 1 (Holtec Proprietary Information)
- Enclosure 9: Shielding Analysis for the HI-STAR 80, HI-2167211, Revision 6 (Holtec Proprietary Information)
- Enclosure 10: HI-STAR 80 Source Terms Using Scale 6.2.1, HI-2177694, Revision 3 (Holtec Proprietary Information)



KPS Technology Campus, 1 Holtec Blvd, Camden, NJ 08104

Telephone (856) 797-0900

Fax (856) 797-0909

- Enclosure 11: Criticality Analysis for the HI-STAR 80 System, HI-2146353, Revision 3
(Holtec Proprietary Information)
- Enclosure 12: Containment Analysis for the HI-STAR 80 Loaded with Spent Fuel, HI-2201022,
Revision 0 (Holtec Proprietary Information)
- Enclosure 13: Affidavit Pursuant to 10CFR2.390 to Withhold Information from Public Disclosure