



January 24, 2018

Pierre Saverot, Project Manager – Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety and Safeguards
ATTN: USNRC Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Docket No.: 71-9373 (HI-STAR 190 Model)

Subject: Submittal of License Amendment Request 9373-1 to HI-STAR 190 Certificate of Compliance 71-9373

Dear Mr. Saverot:

Holtec International herewith submits License Amendment Request (LAR) 9373-1 proposing certain changes to the HI-STAR 190 System 10 CFR 71 Certificate of Compliance (CoC) Number 9373, Revision 0 and its corresponding supporting Safety Analysis Report (SAR), Revision 1. The changes proposed for the license amendment are documented in SAR Revision 2 provided herein.

The focus of this LAR is to make the following changes:

1. Add new options to Loading Configuration 3 for fuel assembly class 16x16C pertaining to loading of fuel debris in the MPC-37,
2. Add Guide Tube Anchors (GTAs) as Non-Fuel Hardware (NFH),
3. Add new heat load pattern 7 that covers damaged fuel assemblies with decay heat up to 1.1 kW for MPC-37,
4. Reduce the minimum cooling time requirements for Neutron Source Assemblies (NSAs) from a current maximum of 14 years (630 GWD/MTU) to 7 years cooling time, independent of NSA burnup, for a cask loaded with CE 16x16 fuel assemblies in MPC-37,
5. Increase the allowable activity limit for APSRs loaded with CE 16x16 fuel assemblies with higher cobalt-60 activity in MPC-37,
6. Modify Condition 8 of CoC to allow insertion of control rods that exceed 8 inches for CE 16x16 fuel assemblies (MPC-37), remove Condition 8 from the CoC and add to Appendix 7.C of SAR,
7. Add new enhanced DFC design to the SAR, including DFC drawing no. 11107, and
8. Editorial corrections to Charpy absorbed energy and lateral expansion impact testing values, and other clarifications to align impact testing acceptance criteria with the ASME Code Section III Subsection NF.



A complete and updated SAR (Revision 2) is provided with this LAR. The SAR's Revision Summary Log section includes information on the SAR's revision status and configuration control.

In addition to the SAR's Revision Summary Log, a summary of proposed changes (SOPC) is provided in Enclosure 1 as a tool to facilitate the staff's review. The SOPC includes reasons and justifications for various safety significant changes proposed by this LAR.

Enclosure 2 contains Holtec's proposed Certificate of Compliance (CoC) for the staff's convenience. Enclosure 3 contains the proprietary Safety Analysis Report (SAR) for the HI-STAR 190 Package, including licensing drawings. Enclosure 4 contains the non-proprietary Safety Analysis Report (SAR) for the HI-STAR 190 Package. Enclosures 5 through 8 contain various supporting documents such as calculation packages and computer data files.

The information in Enclosures 3 and 5 through 8 are considered proprietary by Holtec. Therefore Enclosure 9 is an affidavit prepared in accordance with 10 CFR 2.390 requesting that Enclosures 3 and 5 through 8 to this letter be withheld from public disclosure due to their proprietary nature.

If you have any questions, please contact me at (856)-797-0900, ext. 3844.

Sincerely,

Royston Ngwayah
Licensing Engineer
Holtec International

cc: (Via email)
Meraj Rahimi, USNRC
Mike Layton, USNRC
Holtec Users Group

Enclosures: (3 and 5 through 8 contain Holtec Proprietary Information)

Enclosure 1: Summary of Proposed Changes (SOPC) for HI-STAR 190 LAR 9373-1
(Holtec Non-Proprietary Information)

Enclosure 2: Proposed changes to Certificate of Compliance (No. 9373) for the HI-STAR 190
(Holtec Non-Proprietary Information)

Enclosure 3: HI-STAR 190 Safety Analysis Report (SAR), HI-2146214, Revision 2
(Holtec Proprietary Report)

Enclosure 4: HI-STAR 190 Safety Analysis Report (SAR), HI-2146214, Revision 2
(Holtec Non-Proprietary Report)



- Enclosure 5: Thermal Evaluations of HI-STAR 190 System, HI-2146286, Revision 4, and Computer Input/Output Files (Holtec Proprietary Information)
- Enclosure 6: Shielding Analysis for the HI-STAR 190 Cask, HI-2146294, Revision 4 and Computer Input/Output Files (Holtec Proprietary Information)
- Enclosure 7: HI-STAR 190 Source Terms and Loading Patterns Using Scale 6.2.1, HI-2167524, Revision 1 and Computer Input/Output Files (Holtec Proprietary Information)
- Enclosure 8: Criticality Evaluation of HI-STAR 190, HI-2156424, Revision 4 and Computer Input/Output Files (Holtec Proprietary Information)
- Enclosure 9: Affidavit Pursuant to 10 CFR 2.390 to Withhold Information from Public Disclosure