

**Attachment 1 to Holtec Letter 5014795**  
**LAR 1008-3**  
**SUMMARY OF PROPOSED CHANGES**

**Proposed Change #1**

Inclusion of Multipurpose Canister, MPC-32 for PWR fuel storage into the HI-STAR 100 storage docket.

**Reason for Proposed Change #1**

This change aligns the MPCs allowed in the HI-STAR 100 storage overpack with those previously licensed for transportation in the HI-STAR 100.

**Justification for Proposed Change #1**

As in all HI-STAR and HI-STORM dockets, the grouping of canisters for the overpack are qualified by selecting the canister which is most limiting, for all design basis analyses. Adding MPC-32 to the storage FSAR means that each design basis safety analysis is reviewed and determined if the current analysis is bounding, or if the MPC-32 analysis would be bounding. For this purpose, the design basis analyses from the HI-STAR 100 transportation docket (71-9261) are utilized as much as possible. The MPC-32 was first added to the transportation license under 71-9261 Revision 5, and the approval is documented in the NRC staff SER, Revision 5, dated October 12, 2006.

This change impacts all chapters of the FSAR and also the HI-STAR 100 Storage CoC.

**Proposed Change #2**

The use of the Metamic neutron absorber is included for MPC-32, -24, and -68.

**Reason for Proposed Change #2**

This change ensures consistency across all Holtec storage dockets.

**Justification for Proposed Change #2**

Metamic has already been approved for use in existing Holtec storage and transportation dockets. Metamic has been approved for use in the HI-STAR 100 transport license since the NRC SER Revision 8, dated October 12, 2010.

**Proposed Change #3**

The confinement boundary criterion is revised to be leak tight in accordance with ISG-18.

**Reason for Proposed Change #3**

This change ensures consistency across all Holtec storage dockets, as well as consistency with the most up to date NRC guidance. Use of ISG-18 to show that leakage from the confinement boundary is not credible was approved for MPC-32 under the HI-STORM 100 Storage Docket, 72-1014, in the NRC SER for Amendment 2, dated June 7, 2005.

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**Justification for Proposed Change #3**

This change ensures that the HI-STAR 100 storage FSAR is in accordance with the most up to date Holtec dockets. This change impacts FSAR Chapters 2 and 7.

**Proposed Change #4**

Soluble boron credit has been included for both MPC-32 and MPC-24.

**Reason for Proposed Change #4**

This change aligns the HI-STAR 100 storage docket with the HI-STORM 100 storage docket.

**Justification for Proposed Change #4**

The soluble boron credit taken in this HI-STAR 100 storage amendment is the same as the credit taken for the same MPC-32 and MPC-24. This soluble boron credit was first approved for MPCs in HI-STORM 100, Amendment 1.

**Proposed Change #5**

Pocket trunnions are made optional in the HI-STAR 100 design.

**Reason for Proposed Change #5**

The HI-STAR 100 will be rotated using a custom designed “rotator cradle”, which does not rely on the pocket trunnions.

**Justification for Proposed Change #5**

The pocket trunnions are eliminated from the HI-STAR 100 design early loading experience indicated the pocket trunnion locations to be a localized dose accretor. The pocket trunnions are already optional under the HI-STAR 100 transportation license.

**Proposed Change #6**

Standard system features and ancillaries such as the Forced Helium Dehydrator (FHD), which have been widely used in the HI-STORM dockets, are incorporated by reference in this docket for completeness.

**Reason for Proposed Change #6**

This change ensures consistency in across all Holtec storage dockets.

**Justification for Proposed Change #6**

These features and ancillaries have already been approved in existing Holtec storage/transport dockets. The FHD has already been approved for use with the HI-STAR 100 under the transportation Docket 71-9261 in NRC SER Revision 2, dated May 31, 2002. This change impacts all chapters of the FSAR.

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**Proposed Change #7**

Changes are made to the HI-STAR 100 FSAR to allow for horizontal storage of the casks.

**Reason for Proposed Change #7**

This change allows flexibility for users to store the casks in different orientation.

**Justification for Proposed Change #7**

The HI-STAR 100 transportation docket evaluates the MPC-32 in a HI-STAR 100 overpack in the horizontal orientation. The HI-STAR 100 storage docket will reference the applicable information in the HI-STAR 100 transportation docket.

**Proposed Change #8**

The permissible fuel cladding temperature limits for moderate and high burn-up fuel under normal, accident, and short term operating conditions have been updated to meet ISG-11 Rev. 3.

**Reason for Proposed Change #8**

This change aligns the cladding temperature limits with those used in other HI-STAR / HI-STORM dockets.

**Justification for Proposed Change #8**

This change ensures that the HI-STAR 100 storage FSAR is in compliance with the most up to date NRC guidance on cladding temperatures documented in ISG-11 Rev 3.

**Proposed Change #9**

The structural requirements to designate a cask transporter as single failure-proof have been excerpted from the HI-STORM FW docket.

**Reason for Proposed Change #9**

This change ensures consistency in the design criteria for the transporter which is typically used to handle both HI-STORMs and HI-STARs.

**Justification for Proposed Change #9**

The change in transporter design criteria has already been approved in the HI-STORM FW docket (72-1032). The original approval for single failure-proof handling devices is documented in the SER for HI-STORM FW Amendment 0, published July 14, 2011.

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**Proposed Change #10**

A summary of the quality assurance program applied to safety significant activities have been excerpted from the HI-STORM UMAX docket.

**Reason for Proposed Change #10**

This change ensures consistency across all Holtec storage dockets.

**Justification for Proposed Change #10**

The most up to date summary of the quality assurance (QA) program applied to safety significant work is contained in the HI-STORM UMAX docket. This QA program description was approved under the UMAX Amendment 0 SER, published April 2, 2015. This change impacts FSAR Chapter 13.

**Editorial Changes**

- Drawing Updates – the most recent drawings approved under transportation are included. This update includes some alternative materials for forgings. The drawings have already been approved under HI-STAR 100 transportation license Revision 9.
- MPC Design Pressure (accident condition) updated to match the transportation limit.