

FSAR SECTION REVISION STATUS, LIST OF AFFECTED SECTIONS AND REVISION SUMMARY

FSAR Report No.: HI-2114830

FSAR Revision Number: 3

FSAR Title:

Final Safety Analysis Report on the HI-STORM FW System

This FSAR is submitted to the USNRC in support of Holtec International's application to secure a CoC under 10CFR Part 72.

FSAR review and verification are controlled at the chapter level and changes are annotated at the chapter level.

A section in a chapter is identified by two numerals separated by a decimal. Each section begins on a fresh page. Unless indicated as a "complete revision" in the summary description of change below, if any change in the content is made, then the change is indicated by a "bar" in the right page margin and the revision number of the entire chapter including applicable figures (annotated in the footer) is changed.

A summary description of change is provided below for each FSAR chapter. Minor editorial changes to this FSAR may not be summarized in the description of change.

Chapter 1 (including Glossary and Notation)

Affected Section or Table No.	Current Revision No.	Summary Description of Change
Sub-section 1.0.1	3	Updated the list of ECOs and 72.48 Evaluations for changes that are incorporated into this revision of the FSAR.
Table 1.0.3		Clarified the requirement for vertically lifting the HI-STORM FW system to include tilting of the HI-TRAC VW if needed to clear an obstruction as indicated in Subsection 4.5.1. Also, updated to include Helium leakage testing for the MPC base metals and welds for the shell and baseplate. Both changes were made via ECOs.
Subsection 1.2.1.4.1		Clarified that the fuel basket is always in the vertical orientation when in storage via an ECO.
Subsection 1.2.2.1		See the summary above for Table 1.0.3 on lifting of the HI-STORM FW system.
Subsection 1.2.3		Clarification added that sub-design heat loads are in Chapter 4.
Table 1.2.3		New heat load patterns added for MPC-37 for Amendment 1.
Table 1.2.4		New heat load pattern added for MPC-89 for Amendment 1.

Section 1.5		Updated the drawing section with the latest drawing revisions and attached the latest licensing drawings via ECOs.
Table 1.3.1		Updated table with docket assigned to Holtec by the NRC.
Chapter 2		
Section or Table No.	Current Revision No.	Summary Description of Change
Subsection 2.0.1	3	Updated confinement discussion to include Helium leakage testing for the MPC base metals and welds for the shell and baseplate via an ECO.
Table 2.1.3		Updated table and notes to clarify fuel enrichment criteria when undamaged and damaged BWR fuel assemblies are loaded into the MPC. This change was previously in FW FSAR Rev. 1, which is incorporated in Revision 3.
Subsection 2.2.3		Clarified the requirement for vertically lifting the HI-STORM FW system to include tilting of the HI-TRAC VW if needed to clear an obstruction as indicated in Subsection 4.5.1. This change was via an ECO.
Table 2.3.2		Updated the HI-STORM FW Overpack Surface dose rates to match shorter a change to shorter cooling times for the cask contents. This change was previously in FW FSAR Rev. 1, which is incorporated in Revision 3.
Chapter 3		
Section or Table No.	Current Revision No.	Summary Description of Change
Section 3.0, Subsection 3.3.2, Table 3.3.7, Subsection 3.4.3.1, and Section 3.8	3	Incorporated ECO changes. Note – no changes were made to the Chapter 3 Appendices, so those remain Revision 2
Chapter 4		
Section or Table No.	Current Revision No.	Summary Description of Change
Section 4.0		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3. ECO also incorporated.
Table 4.1.1		Updated for Amendment 1 changes
Figure 4.1.2		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Section 4.2		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 4.2.1, 4.2.2, 4.2.4,		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.

and 4.2.5		
Section 4.4		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Subsection 4.4.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3. Amendment 1 changes are also incorporated throughout the subsection.
Subsection 4.4.2		Amendment 1 changes incorporated for MPC-37
Subsection 4.4.4		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3. Additionally, Amendment 1 changes regarding the panel gap are also included.
Subsection 4.4.5		Amendment 1 heat load patterns are incorporated. Other changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 4.4.2, 4.4.3, and 4.4.5		Amendment 1 changes regarding thermal calculations incorporated.
Table 4.4.7 and 4.4.8		Amendment 1 changes on MPC-37 incorporated. Additionally, an ECO and FW FSAR Rev. 1 changes incorporated.
Table 4.4.10 and Table 4.4.11	3	The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 4.4.12		Deleted due to an ECO.
Subsection 4.5.2		Changes related to the Amendment 1 panel gap and grid analysis are incorporated.
Subsection 4.5.3		Amendment 1 thermal model changes and an ECO are incorporated.
Subsection 4.5.4		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3. Amendment 1 thermal model changes and an ECO are also incorporated.
Table 4.5.1, 4.5.2, 4.5.5, and 4.5.9		Amendment 1 thermal model changes are incorporated, which includes removing Table 4.5.9
Table 4.5.3 and 4.5.4		An ECO is incorporated into the table notes.
Table 4.5.6		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Section 4.6		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Subsection		Amendment 1 thermal model changes are incorporated

4.6.2, Table 4.6.1, Table 4.6.2, Table 4.6.4, Table 4.6.5, Table 4.6.6, Table 4.6.7, and Section 4.8		
Chapter 5		
Section or Table No.	Current Revision No.	Summary Description of Change
Section 5.0	3	The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Section 5.0		It is clarified that reanalysis may be done, via an ECO.
Section 5.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 5.0.1		Changed 5 year cooling to 4.5 year cooling for design basis fuel for MPC-37 basket. This change was previously in FW FSAR Rev. 1, which is incorporated in Revision 3.
Table 5.02		Changed 10 year cooling to 8 year cooling for design basis fuel for MPC-37 basket. This change was previously in FW FSAR Rev. 1, which is incorporated in Revision 3.
Subsection 5.1.2		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Tables 5.1.1, 5.1.3, 5.1.4, 5.1.5, 5.1.7, 5.1.9 and Figure 5.1.3		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 5.2.1		An editorial change is made for clarification, via an ECO.
Tables 5.2.2, 5.2.3, 5.2.7, 5.2.8, 5.2.11 and 5.2.12		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Subsection 5.3.1		An editorial change is made for clarification, via an ECO.
Table 5.3.2		An editorial change is made to the concrete density for clarification, via an ECO.
Section 5.4		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.

Tables 5.4.2, 5.4.3, 5.4.6, and 5.4.7		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Appendix 5.A		The sample input file for ORIGEN-S is updated. The change was previously in FW FSAR Rev. 1, which is incorporated in Revision 3.
Chapter 6		
Section or Table No.	Current Revision No.	Summary Description of Change
Section 6.0	3	It is clarified that reanalysis may be done, via an ECO.
Section 6.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 6.1.6		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 6.2.5		Editorial correction to show a correct value.
Paragraph 6.4.4.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Subsection 6.4.9		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 6.4.8		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Chapter 7 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
	0	No changes.
Chapter 8 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
Sub section 8.4.4.1	3	Editorial change made for clarification via an ECO
Subsection 8.14.1		Helium leakage testing updated via an ECO
Chapter 9 Changes		

Section or Table No.	Current Revision No.	Summary Description of Change
9.2	3	Editorial correction to Section heading per an ECO
Chapter 10 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
Subsection 10.1.1.2	3	Editorial change to clarify records of weld integrity via an ECO.
Subsection 10.1.4 and Table 10.1.1		Included helium leakage testing for the MPC base metals and welds for the shell and baseplate via an ECO.
Subsection 10.1.1.3		Editorial change to remove mention of anti-rotation bars via an ECO.
Subsection 10.1.2.2.2		Editorial change to clarify pressure testing via an ECO.
Subsection 10.1.3		Editorial change to correct reference to Metamic-HT manufacturing manual via an ECO.
Subsection 10.1.6		Editorial change to clarify the meaning of macrovoids in lead via an ECO.
Chapter 11 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
Subsection 11.1.1	3	The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 11.2.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Tables 11.3.1 and 11.3.2		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Subsection 11.4.1		The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Table 11.4.1		The table is removed. The changes were previously in FW FSAR Rev. 1, which are incorporated in Revision 3.
Chapter 12 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change

Subsection 12.2.1	3	Clarified the requirement for vertically lifting the HI-STORM FW system to include tilting of the HI-TRAC VW if needed to clear an obstruction as indicated in Subsection 4.5.1. This change was via an ECO.
Chapter 13 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
Subsection 13.2.11	3	Updated for consistency with Amendment 1 heat load patterns.
Chapter 14 Changes		
Section or Table No.	Current Revision No.	Summary Description of Change
	0	No change