CoC Condition/TS Identifier: CoC-First Statement

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			This certificate is conditioned upon fulfilling the requirements of 10 CFR Part 72, as applicable, the attached Appendix A (Technical Specifications) and Appendix B (Approved Contents and Design Features), and the conditions specified below:
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	IIIres	No
	ections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	Νο
	Section 4 Administrative Controls		No
Risk Insight**: Will removing	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		No
this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	A Significant reduction in the margin of safety for ISFSI or cask operation?		No

Evaluation Summary	As this is an introductory statement it does not fit	F
	into any of the CoC of Appendix Sections outlines on	
	this evaluation form. Therefore, it will remain in the	
	CoC before Section I. Rewrite to specify correct	
	contents of reorganized Appendices: "This certificate	
	is conditioned upon fulfilling the requirements of 10	
	CFR Part 72, as applicable, the attached Appendix A	
	(Inspections, Tests and Evaluations), Appendix B	
	(Technical Specifications), and the conditions	
	specified below:"	

CoC Condition/TS Identifier: <u>CoC-Des.</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Description: Model No.: HI-STORM FW MPC Storage System Description The HI-STORM FW MPC Storage System consists of the following components: (1) interchangeable multi-purpose canisters (MPCs), which contain the fuel; (2) a storage overpack (HI-STORM FW), which contains the MPC during storage; and (3) a transfer cask (HI-TRAC VW), which contains the MPC during loading, unloading and transfer operations. The MPC stores up to 44 pressurized water reactor fuel
			assemblies or up to 89 boiling water reactor fuel assemblies
CoC Body	Section I. Technology		Yes
, Certified Design	Section II. Design Feat	ures	No
	ections, Tests, and		No
Evaluations			
	Section 1 Definitions,	Use	No
	and Application Section 2 Approved	A1	No
	Contents (Selection	A1 A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs)	L3	No
	(Selection Criteria) Section 4 Administrative Controls		No
Risk Insight**: Will removing this requirement from the CoC/TS result in	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		No

The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?	Yes – since a different non-analyzed DS(
A Significant reduction in the margin of safety for ISFSI or cask operation?	No
Evaluation Summary	Keep in CoC Section I as this is a description of the d

CoC Condition/TS Identifier: <u>CoC-1</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 1: Operating Procedures: Written operating procedures shall be prepared for handling, loading, movement, surveillance, and maintenance. The user's site-specific written operating procedures shall be consistent with the technical basis described in Chapter 9 of the FSAR.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	tures	No
Appendix A - Inspective Evaluations	ections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)*	L3	No
	and Surveillance		
	Requirements (SRs)		
	(Selection Criteria)		
	Section 4 Administrative Controls		No
	A significant increase in		No
	the probability or		
	consequences of an		
	accident previously		
Risk Insight**:	evaluated in the cask		
Will removing	FSAR?		
this	The possibility of a new or		No
requirement	different kind of accident		
from the CoC/TS	being created compared		
result in	ult in to those previously evaluated in the FSAR? A Significant reduction in the margin of safety for ISFSI or cask operation?		
			No
			No

Evaluation Summary	Deleted from CoC – not required as compliance with
	10 CFR 72.150, which requires that documented
	procedures be followed, is a regulatory requirement
	that must be met.

CoC Condition/TS Identifier: ____CoC-2____

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 2: Acceptance tests and maintenance program: Written acceptance tests and a maintenance program shall be prepared consistent with the technical basis described in Chapter 10 of the FSAR. At completion of welding the MPC shell to baseplate, an MPC confinement weld helium leak test shall be performed using a helium mass spectrometer. The confinement boundary welds leakage rate test shall be performed in accordance with ANSI N14.5 to "leaktight" criterion. If a leakage rate exceeding the acceptance criteria is detected, then the area of leakage shall be determined and the area repaired per ASME Code Section III, Subsection NB, Article NB- 4450 requirements. Re-testing shall be performed until the leakage rate acceptance criterion is met.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Features		No
Appendix A - Inspections, Tests, and Evaluations			Yes
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	No
	Section 4 Administrative Controls		No
Risk Insight**:	A significant increase in		First sentence – No
Will removing	the probability or		Rest of Section – Yes. This test confirms the MPC has
this	consequences of an		been manufactured correctly and will provide
requirement	accident previously		confinement as designed.
from the CoC/TS result in	evaluated in the cask FSAR?		

The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?	No
A Significant reduction in the margin of safety for ISFSI or cask operation?	No
Evaluation Summary	First sentence will be deleted as this statement merely refers to the FSAR and so does not need to be repeated in the CoC. The rest of this section will be moved to Appendix A as it describes a test to provide reasonable assurance that an MPC has been manufactured and will operate in conformance with the certified design, and that the confinement safety function will be performed.

CoC Condition/TS Identifier: CoC-3

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 3: Quality Assurance: Activities in the areas of design, purchase, fabrication, assembly, inspection, testing, operation, maintenance, repair, modification of structures, systems and components, and decommissioning that are important-to-safety shall be conducted in accordance with a Commission- approved quality assurance program which satisfies the applicable requirements of 10 CFR Part 72, Subpart G, and which is established, maintained, and executed with regard to the storage system.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	tures	No
Appendix A - Inspe Evaluations	ections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
and Surv Require	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	No
Section 4 Administr Controls		ive	No
Risk Insight**:A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		in	No
		lent red	No

A Significant reduction in the margin of safety for ISFSI or cask operation?	No
Evaluation Summary	Delete from CoC - not required as compliance with the QA provisions in 10 CFR 72 Subpart G is a regulatory requirement that must be met.

CoC Condition/TS Identifier: ____CoC-4____

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 4: Heavy Loads Requirements: Each lift of an MPC, a HI-TRAC VW transfer cask, or any HI- STORM FW overpack must be made in accordance to the existing heavy loads requirements and procedures of the licensed facility at which the lift is made. A plant-specific review of the heavy load handling procedures (under 10 CFR 50.59 or 10 CFR 72.48, as applicable) is required to show operational compliance with existing plant specific heavy loads requirements. Lifting operations outside of structures governed by 10 CFR Part 50 must be in accordance with Section 5.2 of Appendix A.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspe Evaluations	Appendix A - Inspections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	No
	Section 4 Administrative Controls		Yes
	A significant increase	in	Yes
	the probability or		Adherence to heavy load lifting procedures is
Risk Insight**:	consequences of an		necessary to preclude the possibility of a cask drop
Will removing	accident previously		during loading operations inside the plant's fuel
this	evaluated in the cask		handling building (per 10 CFR 50) and during transfer operations (per 10 CFR 72). A significant increase in
requirement from the CoC/TS	FSAR?		the probability of a cask drop would occur if these
result in			heavy load handing procedures are not followed.
	The possibility of a ne	wor	No
	different kind of accid		NU

	being created compared to those previously evaluated in the FSAR?	
	A Significant reduction in	No
	the margin of safety for	
	ISFSI or cask operation?	
Evaluation Summary		Move to Appendix B - Administrative Controls. Note that this administrative control is applicable to heavy
		load lifting procedures at the ISFSI. Lifts within the
		Reactor Building are governed by existing 10 CFR Part
		50 license requirements.

CoC Condition/TS Identifier: _____CoC-5_____

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 5: Approved Contents: Contents of the HI-STORM FW MPC Storage System must meet the fuel specifications given in Appendix B to this certificate.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspective Evaluations	ections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved Contents (Selection Criteria)	A1 A2 A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	No
	Section 4 Administrative Controls		No
Risk Insight**: Will removing	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		No
this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	A Significant reduction in the margin of safety for ISFSI or cask operation?		No
Evaluation Summary			Delete from the CoC - This statement in the CoC
			merely points to information in the Appendices.

CoC Condition/TS Identifier: <u>CoC-6</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 6: Design Features: Features or characteristics for the site or system must be in accordance with Appendix B to this certificate.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	tures	No
Appendix A - Insp	ections, Tests, and		No
Evaluations			
Section 1 Definitions, Use and Application		Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs)	L3	No
	(Selection Criteria) Section 4 Administrative Controls		No
Risk Insight**: Will removing	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?		No
this requirement from the CoC/TS result in	The possibility of a new or different kind of accident being created compared to those previously evaluated in the FSAR?		No
	A Significant reduction in the margin of safety for ISFSI or cask operation?		No
			All important design features will be discussed in the
			CoC

Evaluation Summary	Delete from CoC as this is an unnecessary cross-
	reference. All important design features will be
	included in the CoC or its Appendices.

CoC Condition/TS Identifier: ____CoC-7____

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 7: Changes to the CoC: The holder of this certificate who desires to make changes to the certificate, which includes Appendix A (Technical Specifications) and Appendix B (Approved Contents and Design Features), shall submit an application for amendment of the certificate.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Evaluations	ections, Tests, and		No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)*	L3	No
	and Surveillance		
	Requirements (SRs)		
	(Selection Criteria)		N
	Section 4 Administrative		No
	Controls		Νο
	A significant increase in the probability or		NO
	consequences of an		
	accident previously		
Risk Insight**:	evaluated in the cask		
Will removing	FSAR?		
this	The possibility of a ne	w or	No
requirement	different kind of accident		
from the CoC/TS	being created compared		
result in	to those previously evaluated in the FSAR?		
	A Significant reduction in		No
	the margin of safety f		
	ISFSI or cask operation?		

Evaluation Summary	Delete from CoC - not required as 10CFR72.244 does
	not allow changes to the CoC of its appendices
	without an application for amendment to the
	certificate.

CoC Condition/TS Identifier: <u>CoC-8</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 8: Special Requirements for First System in Place: The air mass flow rate through the cask system will be determined by direct measurements of air velocity in the overpack cooling passages for the first HI-STORM FW MPC Cask System placed into service by any user with a heat load equal to or greater than 30 kW. The velocity will be measured using direct measurements of air velocity in the inlet vents. An analysis shall be performed of
			the cask system with the taken measurements to demonstrate that the measurements validate the analytic methods described in Chapter 4 of the FSAR.
			The thermal validation test and analysis results shall be submitted in a letter report to the NRC pursuant to 10 CFR 72.4. To satisfy condition 8 for casks of the same system type, in lieu of additional submittals pursuant to 10 CFR 72.4, users may document in their 72.212 report a previously performed test and analysis submitted by letter report to the NRC that demonstrates validation of the analytic methods described in Chapter 4 of the FSAR. This condition does not apply to the unventilated version of the system.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	tures	No
Appendix A - Insp Evaluations	ections, Tests, and		Yes
Section 1 Definitions, Use and Application		Use	No
Appondix B	Section 2 Approved	A1	No
Appendix B. Technical	Contents (Selection	A2	No
Specifications	Criteria)	A3	No
	Section 3 Limiting	L1	No
	Conditions for	L2	No
	Operation (LCOs)*	L3	No

	and Surveillance	
	Requirements (SRs)	
	(Selection Criteria)	
	Section 4 Administrative	No
	Controls	
	A significant increase in	No. The flow rate test will still be performed in
	the probability or	accordance with Chapter 9 of the FSAR.
	consequences of an	
	accident previously	
	evaluated in the cask	
	FSAR?	
Risk Insight**:	The possibility of a new or	No. The flow rate test will still be performed in
Will removing	different kind of accident	accordance with Chapter 9 of the FSAR.
this	being created compared	
requirement	to those previously	
from the CoC/TS	evaluated in the FSAR?	
result in	A Significant reduction in	No. The test merely confirms the equipment has
	the margin of safety for	been manufactured and will operate in conformance
	ISFSI or cask operation?	with the certified design. The quality assurance
		program will still ensure that the SFSCs are
		manufactured and operate as designed. Furthermore,
		function of the SFSCs.
Evaluation Summa	arv	Delete from CoC – not required as the test merely
	,	. ,
		Also, the second paragraph is not required as
		- , ,
Evaluation Summa		program will still ensure that the SFSCs are manufactured and operate as designed. Furthermore, LCO 3.1.2 will still ensure the heat removal safety

Holtec Letter 5018102 Attachment 3

CoC Condition/Technical Specification Evaluation Form - CoC original

CoC Condition/TS Identifier: <u>CoC-9</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement			CoC Condition 9: Pre-operational Testing and Training Exercise: A dry run training exercise of the loading, closure, handling, unloading, and transfer of the HI-STORM FW MPC Storage System shall be conducted by the licensee prior to the first use of the system to load spent fuel assemblies. The training exercise shall not be conducted with spent fuel in the MPC. The dry run may be performed in an alternate step sequence from the actual procedures, but all steps must be performed
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Feat	ures	No
Appendix A - Inspe Evaluations	ections, Tests, and		No
	Section 1 Definitions, Use and Application		No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)*	L3	No
	and Surveillance		
	Requirements (SRs)		
	(Selection Criteria)		
	Section 4 Administrative		Yes
	Controls		
	A significant increase in		N <u>o</u> /A
Risk Insight**:	the probability or		
Will removing this	consequences of an		
	accident previously		
requirement	evaluated in the cask		
from the CoC/TS	FSAR?		
result in	The possibility of a ne		N <u>o</u> /A
	different kind of accident		
	being created compar	ed	

	to those previously evaluated in the FSAR?	
	A Significant reduction in the margin of safety for ISFSI or cask operation?	N <u>o</u> /A
Evaluation Summ	•	Move to Appendix B as these testing and training exercises ensure that the equipment will operate and perform safety functions as designed.
		The specifics of dry run training should be performed by the general licensee prior to initial use of the system to load spent fuel. In addition, the general license's training program is subject to NRC inspection.

CoC Condition/TS Identifier: <u>CoC-10</u>

* All LCOs also require an Applicability, Condition(s), Required Action(s), Completion Time(s), Surveillance Requirement(s), and Frequency(ies). Refer to NUREG-1745 for additional guidance.

Requirement	nt		CoC Condition 10: Authorization: The HI-STORM FW MPC Storage System, which is authorized by this certificate, is hereby approved for general use by holders of 10 CFR Part 50 licenses for nuclear reactors at reactor sites under the general license issued pursuant to 10 CFR 72.210, subject to the conditions specified by 10 CFR 72.212, this certificate, and the attached Appendices A and B. The HI- STORM FW MPC Storage System may be fabricated and used in accordance with any approved amendment to CoC No. 1032 listed in 10 CFR 72.214. Each of the licensed HI-STORM FW MPC Storage System components (i.e., the MPC, overpack, and transfer cask), if fabricated in accordance with any of the approved CoC Amendments, may be used with one another provided an assessment is performed by the CoC holder that demonstrates design compatibility. The HI-STORM FW MPC Storage System may be installed on an ISFSI pad with the HI- STORM 100 Cask System (USNRC Docket 72-1014) provided an assessment is performed by the CoC holder that demonstrates design compatibility.
CoC Body	Section I. Technology		No
Certified Design	Section II. Design Features		No
Appendix A - Inspections, Tests, and Evaluations			No
	Section 1 Definitions, and Application	Use	No
	Section 2 Approved	A1	No
	Contents (Selection	A2	No
	Criteria)	A3	No
Appendix B.	Section 3 Limiting	L1	No
Technical	Conditions for	L2	No
Specifications	Operation (LCOs)* and Surveillance Requirements (SRs) (Selection Criteria)	L3	No
	Section 4 Administrat	ive	No

Risk Insight**: Will removing	A significant increase in the probability or consequences of an accident previously evaluated in the cask FSAR?	No
this requirement from the CoC/TS	The possibility of a new or different kind of accident being created compared	No
result in	to those previously evaluated in the FSAR?	
	A Significant reduction in the margin of safety for ISFSI or cask operation?	No
Evaluation Summa	ary	Delete from CoC - not required as these are regulatory requirements (10 CFR 72.210 through 72.214) that must be met.