1.1 Definitions (continued)

DAMAGED FUEL CONTAINER (DFC)	DFCs are specially designed enclosures for DAMAGED FUEL ASSEMBLIES or FUEL DEBRIS which permit gaseous and liquid media to escape while minimizing dispersal of gross particulates. DFCs authorized for use in the HI-STORM 100 System are as follows: 1. Holtec Dresden Unit 1/Humboldt Bay design 2. Transnuclear Dresden Unit 1 design 3. Holtec Generic BWR design 4. Holtec Generic PWR design
DAMAGED FUEL ISOLATOR (DFI)	DFIs are specially designed barriers installed at the top and bottom of the storage cell space which permit flow of gaseous and liquid media while preventing the potential migration of fissile material from fuel assemblies with cladding damage. DFIs are used ONLY with damaged fuel assemblies which can be handled by normal means and whose structural integrity is such that geometric rearrangement of fuel is not expected. Damaged fuel stored in DFIs may contain missing or partial fuel rods and/or fuel rods with known or suspected cladding defects greater than hairline cracks or pinhole leaks.
FUEL DEBRIS	FUEL DEBRIS is ruptured fuel rods, severed rods, loose fuel pellets, containers or structures that are supporting these loose fuel assembly parts, or fuel assemblies with known or suspected defects which cannot be handled by normal means due to fuel cladding damage.
FUEL BUILDING	The FUEL BUILDING is the site-specific power plant facility, governed by the regulations of 10 CFR Part 50, where the loaded OVERPACK or TRANSFER CASK is transferred to or from the transporter.

(continued)

Table 3-1
MPC Cavity Drying Limits for all MPC Types

Fuel Burnup (MWD/MTU)	**MPC Heat Load (kW)**	**Method of Moisture Removal (Notes 1, 2, and 3)**
All Assemblies ≤ 45,000	≤ 26 (MPC-24/24E/24EF, MPC-32/32F, MPC-68/68F/68FF)	VDS[Note 5] or FHD[Note 6]
	≤ 36.9 (MPC-68M)[Note 6]	VDS or FHD
	≤ 42.8 (MPC-68M)[Note 7]	VDS or FHD
All Assemblies ≤ 45,000	≤ 36.9 (MPC-24/24E/24EF, MPC-32/32F, MPC-68/68F/68FF)[Note 6]	VDS[Note 8] or FHD
One or more assemblies > 45,000	≤ 29 (MPC-68M)	VDS[Note 4]
One or more assemblies > 45,000	≤ 36.9 (MPC-24/24E/24EF/MPC-32/32F/MPC-68/68F/68FF)[Note 6]	VDS[Note 8] or FHD
	≤ 36.9 (MPC-68M)[Note 6]	VDS[Note 8] or FHD
	≤ 42.8 (MPC-68M)[Note 7]	VDS[Note 8] or FHD

Notes:

1. VDS means a vacuum drying system. The acceptance criterion when using a VDS is MPC cavity pressure shall be ≤ 3 torr for ≥ 30 minutes.

2. FHD means a forced helium dehydration system. The acceptance criterion when using an FHD system is the gas temperature exiting the demoisturizer shall be ≤ 21°F for ≥ 30 minutes or the gas dew point exiting the MPC shall be ≤ 22.9°F for ≥ 30 minutes.

3. Vacuum drying of the system must be performed with the annular gap between the MPC and the TRANSFER CASK filled with water.

4. The maximum allowable decay heat per fuel storage location is 0.426 kW.

5. Maximum allowable storage cell heat load is 1.083 kW (MPC-24/24E/24EF), 0.812 kW (MPC-32/32F) and 0.382 kW (MPC-68/68F/68FF).

6. Maximum per assembly allowable heat loads under uniform or regionalized storage defined in Appendix B, Section 2.4.1 or 2.4.2.

7. Maximum per assembly allowable heat loads defined in Appendix B Figures 2.4-1 through 2.4-4.

MPC Helium Backfill Limits
Table 3-2

MPC-68M	
i. Cask Heat Load ≤ 28.19 kW - uniformly distributed per Table 3-4 or regionalized loading per Table 3-3	0.1218 +/-10% g-moles/l OR ≥ 29.3 psig and ≤ 48.5 psig
ii. Cask Heat Load > 28.19 kW - uniformly distributed or greater than regionalized heat load limits per Table 3-3	≥ 45.5 psig and ≤ 48.5 psig
iii. Cask Heat Load ≤ 42.8 kW QSHL Loading Pattern shown in Appendix B, Figure 2.4-1	≥ 43.5 psig and ≤ 46.5 psig
QSHL patterns shown in Appendix B, Figures 2.4-2 through 2.4-4	≥ 45.5 psig and ≤ 48.5 psig

Table 3-5: Completion Time for Actions to Restore SFSC Heat Removal System Operable

MPC Material	MPC Type	Decay Heat Limits per Storage Location	Condition B Completion Time	Condition C Completion Time	Surveillance Frequency
Alloy X Except Duplex[1]	MPC-24/24E/24EF	Appendix B, Section 2.4	8 hrs	24 hrs	24 hrs
	MPC-32/32F				
	MPC-68/68F/68FF/68M				
	MPC-68M	Appendix B, Figures 2.4-1 through 2.4-4			
Alloy X	MPC-24/24E/24EF	Appendix B, Section 2.4	8 hrs	16 hrs	16 hrs
	MPC-32/32F				
	MPC-68/68F/68FF/68M				
Alloy X	MPC-68M	Appendix B, Figures 2.4-1 through 2.4-4	4 hrs	12 hrs	12 hrs
Alloy X Except Duplex[1]	MPC-24	Appendix A, Table 3-3 (Regionalized) OR Appendix A, Table 3-4 (Uniform)	8 hrs	64 hrs	24 hrs
	MPC-24E/EF				
	MPC-32/32F				
	MPC-68/68F/68FF/68M				
Alloy X	MPC-24	Appendix A, Table 3-3 (Regionalized) OR Appendix A, Table 3-4 (Uniform)	8 hrs	24 hrs	24 hrs
	MPC-24E/EF				
	MPC-32/32F				
	MPC-68/68F/68FF/68M				
Alloy X	MPC-24/24E/24EF	0.75 kW	24 hrs	64 hrs	30 days
	MPC-32/32F	0.5 kW			
	MPC-68/68F/68FF/68M	0.264 kW			

Note
1) If any component of the MPC is made of duplex, these completion times are not applicable.