

3MA System Evaluation for ISLOCA

The information in this Appendix of the reference ABWR DCD, including all subsections, is incorporated by reference with the following standard departures.

STD DEP T1 2.4-1

STD DEP T1 2.4-3

STD DEP T1 2.14-1

3MA.2.2 Downstream Interfaces

The 6th bullet of this subsection is deleted to reflect the removal of the Flammability Control System.

STD DEP T1 2.14-1

- ~~Flammability Control System branches off the main discharge line downstream of the branch that returns to the suppression pool. The FCS design pressure exceeds the URS design without upgrade.~~

3MA.2.3 Upgraded Components - RHR System

The following information is added to the **RHR Subsystem A suction piping from the reactor pressure vessel** grouping ~~and reflects departure STD DEP T1 2.4 1, RHR Division A Interconnection to the Spent Fuel Pool.~~

STD DEP T1 2.4-1

Reference	Components	Press./Temp./Design/Seismic Class	Remarks
Sheet 2	***300A-RHR-F016A Valve LC	2.82 MPaG, 182°C, 3B, As	Was 1.37 MPaG
	***300A-RHR-098 Pipe	2.82 MPaG, 182°C, 3B, As	Was 1.37 MPaG

*** To FPC System interface

3MA.4.3 Upgraded Components - RCIC System

~~The information in this subsection of the reference ABWR DCD, is incorporated by reference with the following departure.~~

STD DEP T1 2.4-3

The Reactor Core Isolation Cooling System (RCIC) alternate design description was provided in ABWR Licensing Topical Report NEDE-33299P, "Advanced Boiling Water Reactor (ABWR) with Alternate RCIC Turbine-Pump," ~~submitted under MFN 06 525,~~ dated December 20, 2006. This markup information on pages C-21, C-22 and C-23 of the Licensing Topical Report is incorporated by reference.

3MA.8.1 Upgrade Description

~~The following information is added to the second sentence of the second paragraph, and reflects departure STD-DEP T1 2.4 1.~~

STD DEP T1 2.4-1

This new line has the gate valve locked open with the check valve's flow direction into the skimmer surge tank and provides an open path into the skimmer surge tank from valves RHR-F016A, RHR-F016B and RHR-F016C.

And to the last sentence of the second paragraph.

All the piping between the FPC valves, FPC-F029, FPC-F031, and FPC-F106 and the RHR valves, RHR-F016A, RHR-F016B and RHR-F016C, were upgraded to the URS design pressure of 2.82 MPaG.

The following information is added to the last sentence of the third paragraph.

Valves FPC-F093 and FPC-F017 are always locked open and provide an open path from the RHR valves, RHR-F015A, RHR-F015B and RHR-F015C, to the spent fuel storage pool and cask pit.

3MA.8.3 Upgraded Components - FPC System

~~The following information is added to the FPC System interface with makeup from RHR System or SPCU System grouping and reflects departure STD-DEP T1 2.4 1.~~

STD DEP T1 2.4-1

Reference	Components	Press./Temp./Design/ Seismic Class	Remarks
	250A-RHR-F015A Valve MO	3.43 MPaG, 182°C,3B,As	No Change
	250A-FPC-SS Pipe	1.57 MPaG, 66°C,4C,A(S2)	No Change

The following information is added to the **FPC System interface with makeup from RHR System or SPCU System** grouping ~~and reflects departure STD-DEP T1 2.4 1.~~

Reference	Components	Press./Temp./Design/ Seismic Class	Remarks
	300A-RHR-F016A Valve MO	2.82 MPaG, 182°C,3B,As	No Change
	300A-FPC-SS Pipe	2.82 MPaG, 66°C,4C,B(S1,S2)	No Change

* FPC Valve F029 is open only for fuel pool cooling mode B (maximum heat load operation with RHR System A, B or C operating in parallel with FPC System).

** FPC Valve F031 is open only for fuel pool cooling mode B (refueling when Dryer/Separator Pool is drained and pumped to Radwaste LCW collector tank by RHR System A, B or C).