19QC Review of Significant Shutdown Events: Electrical Power and Decay Heat Removal

The information in this appendix of the reference ABWR DCD, including all subsections and tables, is incorporated by reference with the following departure and supplement.

STD DEP T1 3.4-1 (Table 19QC-2)

19QC.1 Review of Significant Shutdown Events

The information in this subsection of the reference ABWR DCD is incorporated by reference with the following standard supplement.

A review of EPRI TR-1003113, “An Analysis of Loss of Decay Heat Removal Trends and Initiating Event Frequencies (1989-2000),” provided an additional review of more recent shutdown operating experience. The shutdown operating experience discussed in EPRI TR-1003113 does not identify any new or unique challenges to shutdown safety that were not covered in the reference ABWR DCD.

Table 19QC-2 Decay Heat Removal Precursors ~~(Continued)~~

Event Category: Losses or Degradation of RHRs Due to Loss of Coolant from Reactor Vessel				
Plant LER/date	**Initial Plant Conditions**	**Event Description**	**Reported Cause**	**Applicable ABWR Feature**
Susquehanna 1 83-030 February 16, 1983	*Mode 4, Cold Shutdown. RHRS in operation on loop 'A'.*	*The RHRS was operating in the shutdown cooling mode. A Division I isolation signal to the inboard isolation valve to the RHRS caused a loss of shutdown cooling. The system was reestablished by resetting the signals. A second occurrence was experienced within an hour.*	*The Reactor Protection System (RPS) was operating on alternate power supplies while the RPS MG set was undergoing maintenance. Spurious trips of the RPS alternate power supply breakers caused isolation signals.*	*Loss of power does not cause isolation of SDC in the ABWR design. The ~~multiplexed~~ safety system logic will only cause isolation if a valid isolation condition existed.*