

ADDITIONAL QUESTIONS REGARDING
MONTICELO EXTENDED POWER UPRATE
CONTAINMENT OVERPRESSURE ISSUE

The following questions refer to Section 2.6.5 of the PUSAR (NEDC-33322P), i.e., Enclosure 5 to the November 5, 2008, submittal.

1. Figure 2.6-7: Why do RHR C 1% and 3% lines merge for the needed containment accident pressure?
2. Describe or reference a description of the App R scenarios for the Appendix R events on which the App R NPSH analyses are based. Please include the timing of significant events and operator actions and their timing.
3. For the station blackout event, please explain the scenario in the first paragraph of the station blackout section (Page 2-184) which states that the HPCI pump takes suction from the CST, then switches to the suppression pool, then switches suction back to the CST.
4. Figure 2.6-3: Please explain why the 1% and 3% RHR 'B' NPSHr curves coincide.
5. Please provide numerical values in the following table in the blank cells and verify the information in the filled-in cells:

Event	Pump	Flow rate (gpm)	Peak Suppression Pool Temperature (°F)	Max Containment Pressure Needed (psia)	Containment Pressure available @ time of Max Containment Pressure Needed (psia)	Duration of Use of Containment Accident pressure	Min NPSHA (ft)	NPSHR Criterion	NPSHR (ft)
LOCA-ST	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	8489 (2 pumps) 17282 (4 pumps)						3%	
LOCA-LT	CS 1 CS 2 RHR 1	3035 3029 4000						3%	

	RHR 2 RHR 3 RHR 4								
ATWS- PRFO Case 1	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	3035 0 4000 4000 4000 4000						3%	22 - - 23 - -
ATWS- PRFO Case 2	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	3035 0 4000 4000 4000 4000						3%	
ATWS LOOP	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	3035 0 4000 4000 4000 4000						3%	
APP R- SORV	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	0 3029 0 4000 0 0						3%	
APP R No SORV	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	0 3029 0 4000 0 0						3%	
Small Steam Line Break	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4	3020 0 4320 to 600 sec 4000 (> 600 sec) 0 0 0						3%	
Station Blackout	CS 1 CS 2 RHR 1 RHR 2 RHR 3 RHR 4 HPCI	0 0 4000 4000 4000 4000 3000	175.5@4 hrs						

- 6.a Please provide the basis for each of the flows in the above table and why the flows are conservative for analyses using containment accident pressure.
- 6.b How do these flows compare with the flow rates from the same pumps assumed in other Monticello EPU safety analyses for the same events. For example, how do the flow rates for the CS and RHR pumps used for the LOCA NPSH analyses compare with the flow rates used to show compliance with 10 CFR 50.46?
7. Explain the choice of PRFO Ccase 1, PRFO Case 2 and LOOP as the ATWS cases to consider in evaluating the need for ident pressure.