## ATTACHMENT I TO JPN-85-03

# Proposed Technical Specification Changes Related to Reload 6/Cycle 7

(JPTS-85-002)

New York Power Authority James A. FitzPatrick Nuclear Power Plant Docket No. 50-333

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8501250025 850116 PDR ADOCK 05000333 PDR PDR LIST OF FIGURES

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### 3.1 (CONTINUED)

	MCPR Operating Limit for Incremental Cycle Core Average Exposure									
	At RBM Hi-trip level setting				BOC to EOC-2GWD/t	EOC-2GWD/t to EOC-1GWD/t	EOC-1GWD/t			
S	=	.66W	+	39%	1.24	1.29	1.31			
S	=	.66W	+	40%	1.27	1.29	1.31			
S	=	.66W	+	41%	1.27	1.29	1.31			
S	=	.66W	+	42%	1.29	1.29	1.31			
S	=	.66W	+	43%	1.30	1.30	1.31			
S	=	.66W	+	44%	1.34	1.34	1.34			

- C. MCPR shall be determined daily during reactor power operation at 2 25% of rated thermal power and following any change in power level or distribution that would cause operation with a limiting control rod pattern as described in the bases for Specification.3.3.B.5.
- D. When it is determined that a channel has failed in the unsafe condition, the other RPS channels that monitor the same variable shall be functionally tested immediately before the trip system containing the failure is tripped. The trip system containing the unsafe failure may be placed in the untripped condition during the period in which surveillance testing is being performed on the other RPS channels.
- E. Verification of the limits set forth in specification 3.1.B shall be performed as follows:
  - 1. The average scram time to notch position 38 shall be:  $\mathcal{T}_{AVE} \leq \mathcal{T}_{B}$
  - The average scram time to notch position 38 is determined as follows:



where:n = number of surveillance tests performed to date in the cycle, Ni = number of active rods measured in

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# Figure 3.1-2



FOR ALL FUEL TYPES



3.5 (cont'd)

condition, that pump shall be considered inoperable for purposes satisfying Specifications 3.5 A, 3.5.C, and 3.5.E.

## H. <u>Average Planar Linear Heat Generation Rate</u> (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall not exceed the limiting value shown in Figures 3.5-9 through 3.5-11. If anytime during reactor power operation greater than 25% of rated power it is determined that the limiting value for APLHGR is being exceeded, action shall then be initiated within 15 minutes to restore operation to within the prescribed limits. If the APLHGR is not returned to within the prescribed limics within two (2) hours, an orderly reactor power reduction shall be commenced immediately. The reactor power shall be reduced to less than 25% of rated power within the next four hours, or until the APLHGR is returned to within the prescribed limits.

- 4.5 (cont'd)
  - 2. Following any period where the LPCI subsystems or core spray subsystems have not been required to be operable, the discharge piping of the inoperable system shall be vented from the high point prior to the return of the system to service.
  - 3. Whenever the HPCI, RCIC, or Core Spray System is lined up to take suction from the condensate storage tank, the discharge piping of the HPCI, RCIC, and Core Spray shall be vented from the high point of the system, and water flow observed on a monthly basis.
  - 4. The level switches located on the Core Spray and RHR System discharge piping high points which monitor these lines to insure they are full shall be functionally tested each month.
- H. Average Planar Linear Heat Generation Rate (APLHGR)

The APLHGR for each type of fuel as a function of average planar exposure shall be determined daily during reactor operation at  $\geq$  25% rated thermal power.

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### 3.5 BASES (cont'd)

requirements for the emergency diesel generators.

## G. Maintenance of Filled Discharge Pipe

If the discharge piping of the core spay, LPCI, RCIC, and HPCI are not filled, a water hammer can develop in this piping when the pump(s) are started. To minimize damage to the discharge piping and to ensure added margin in the operation of these systems, this technical specification requires the discharge lines to be filled whenever the system is required to be operable. If a discharge pipe is not filled, the pumps that supply that line must be assumed to be inoperable for technical specification purposes. However, if a water hammer were to occur, the system would still perform its design function.

H. Average Planar Linear Heat Generation Rate (APLHGR)

This specification assures that the peak cladding temperature following the postulated design basis loss-of-cololant accident will not exceed the limit specified in 10 CFR 50 Appendix K.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average heat generation rate of all the rods of a fuel

assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within an assembly. Since expected local variation in power distribution within a fuel assembly affect the calculated peak clad temperature by less than ± 20°F relative to t peak temperature for a typical fuel de 1gn, the limit on the average linear heat generation rate is sufficient to assure that calculated temperatures are within the 10 CFR 50 Appendix K limit. The limiting value for APLHGR is shown in Figure 3.5-6 through 3.5-11.

I. Linear Heat Generation Rate (LHGR)

This specification assures that the linear heat generation rate in any rod is less than the design linear heat generation.

The LHGR shall be checked daily during reactor operation at 2 25% rated thermal power to determine if fuel burnu, or control rod movement, has caused changes in power distribution. For LHGR to be a limiting value below 25% rated thermal power, the ratio of local LHGR to average LHGR would have to greater than 10 which is precluded by a considerable margin ehen employing any permissible control rod pattern.

Amendment No.

Figure 3.5-6

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Amendment No. X. 64

Figure 3.5-7

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Figure 3.5-8

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Reference: NEDO-21662-2 (As Ammended

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