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POWER AUTHORITY OF THE STATE OF NEW YORK JAMES A. FITZFATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

ATTACHMENT TO LER 79-096/03L-0

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During normal operation, reactor water conductivity exceeded the Technical Specification limit as a result of leakage from the radwaste concentrator to the main condenser. Operations personnel were transferring concentrated effluent from the radwaste concentrator which caused contamination of the concentrator's condensate receiver with concentrated waste by tube or gasket leakage. The condensate receiver was lined up to return condensate to the main condenser and thereby resulted in the addition of an estimated 50 gallons of concentrated waste with a conductivity of between 10,000 and 20,000 µmho/cm to the main condenser.

Operations personnel noted the rapid increase in reactor vessel conductivity at approximately 2:30 AM. A power reduction was initiated immediately and conductivity exceeded the limits of Technical Specifications, Appendix A, Paragraph 3.6.C. approximately 5 minutes later. Included in this attachment is a complete tabulation of the conductivity transient and other parameters from prior to the event until return to normal following the event.

The FitzPatrick Plant Staff has thoroughly reviewed the transient and NEDO-10899, titled "Chloride Control in BWR Coolants" which indicates that while high conductivity due to the presence of high neutral salt solutions is undesirable, no damage to the reactor fuel or the reactor coolant pressure boundary should result because both the chloride and dissolved oxygen concentrations remained low throughout the transient. Therefore, the event did not represent a significant hazard to the public health and safety.

To preclude recurrence, operation of the waste concentrator was reviewed and it was determined that a shell to the tube side leak exists which allows contamination of the steam condensate when the shell side is pressurized to complete effluent transfer operations of the unit. Until the precise location of the leak can be determined and repaired, the condensate receiver return line will be routed to the waste collector and the line to the main condenser is isolated and tagged. Further, until the unit's condensate receiver is modified by the addition of continuous conductivity measuring equipment operation in this manner will be continued.

NOTE: LER 79-076 is a related event.

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DATE	TIME	REACT CHLORIDE (PPB)*	CONDUCTIVITY (MICROMHO/CM)*	REMARKS		
10/26/79	1800	50	1.05	Reactor water grab sample at clean-up system influent.		
10/28/79	0230			Rapid increase in clean-up system influent noted and power reduction initiated.		
10/28/79	0235		5.0	Clean-up system influent conductivity indication exceeds technical specification limit.		
10/28/79	0400	320	23.0	Reactor water grab sample at clean-up system influent.		
10/28/79	0600		19.0			H
10/28/79	0745	230	15.0	6		"
10/28/79	0840	-	13.0		· . n	n T
10/28/79	0950		12.0	- 11		"
10/28/79	1105		9.1			
10/28/79	1145	180	8.3			W_
10/28/79	1415		6.0	Clean-up system influent conductivity indication.		
10/28/79	1530		5.3	п	п	
10/28/79	1650	190	4.8	Reactor water grab sample at clean-up system influent.		
10/28/79	1950	90	4.3			ii .
10/28/79	2355	76	2.3	н		
10/29/79	0400	60	1.7		11	ii .
10/29/79	0830	40	0.95		"	

^{*} Technical specification limits for chloride and conductivity are 500 ppb and 5.0 micromho/cm respectively.