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PACILITY		1)							DOCKET NUMBER	(2)	PAGE TE			
Sus	queh	anna Steam	Electric	Station	-Unit 2			- 16 - 1 8 - 18	0 5 0 0	0 3 8 8	1 OF 012			
TITLE IA				194.25										
RPS	Man	ual Scram	Due To Stu	ick Open	Turbine B	ypass	Valv	e During	Shutdown.					
EVI	INT DAT	E (S)	LER NUMBER (6) THEVERON	REPORT DATE	(7)		OTHER .	FACILITIES INVOL	LVED (B)				
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LEVE	- 0	1012 20	.406(a)(1)(ii)		50.38(a)(2)			50.73(a)(2)(vii)		OTHER IS	pecify in Abstract			
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			COMPLETE	ONE LINE FOR	EACH COMPONENT	FAILURE	DESCRIBE	D IN THIS REPOR	T (13)					
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			SUPPLEME	NTAL REPORT	EXPECTED (14)				EXPECTE	D MONT	H DAY YEAR			
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROV	ED	OWB	NO.	31	50-	-01	04	
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FACILITY NAME (1)	DOCKET NUMBER (2)								LER NUMBER (6)								PAGE (3)			
Susquehanna Steam Electric Station									YE	AR		SEQU	JENTI	AL		REVISION		T		
Unit 2	0	5	0	0	10	13	18	18	8	4	_	0	0	8	_	010	0 2	OF	0	2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

NRC Form 386A

At 0530 hours on 5/28/84 shutdown of the Unit 2 reactor commenced from low portion testing in compliance with Action Statement (b)(3) of Technical Specification 3.5.1.b(2) incurred at 1730 hours seven days earlier on 5/21/84 due to the inoperability of the 'B' Loop of the Low Pressure Core Injection (LPCI) System (refer to LER 84-006-00). The shutdown was being accomplished by inserting control rods individually into the reactor's core utilizing the rod pull sheet until all of the control rods were at the full in position. Shutdown proceeded normally until at 0605 hours it was observed that the #1 Turbine Bypass Valve would not close below the 18% open position (ref. Memo PLA-2229, 'Susquehanna Steam Electric Station Turbine Bypass Transient'', B.D. Kenyon to Dr. Thomas E. Murley, dated 6/8/84). Shutdown of the Unit 2 reactor was halted and control rods in group 5 were pulled sequentially to maintain reactor pressure with the #1 Turbine Bypass Valve Controling at a position slightly greater than 18%.

Instrumentation and Control, and Mechanical Maintenance personnel were sent to investigate the valve's failure to close. These investigations determined that the #1 Bypass Valve could not be closed below 18%. It was then determined that the best means available for shutting 'own the reactor would be thru an RPS Manual Scram. At 1346 hours, the Unit 2 reactor was manually scrammed, and at reactor vessel pressure of 700 psig all inboard main steam isolation valves were closed.

Subseque t investigations of the EHC pressure control and bypass valve control logic indicated that all control functions were operating normally. Investigation of the #1 Bypass Valve revealed that a chipping hammer was wedged between the Bypass Valve seat and the valve disc preventing the #1 Bypass Valve from fully closing (ref. Memo PLA-2229).

Although a sizable portion of the handle and the head of the hammer itself remained intact, it is believed that a spring portion, small in comparison to the overall dimensions of the hammer, was severed from the handle. This severed portion would most likely be deposited in the bypass's sparger into the Main Condenser, posing no threat to components in other parts of the system.

Disassembly of the #1 Bypass Valve showed small dents on the disc and the seat of the valve. The valve's seat was machined to remove the dents, the disc was replaced due to the difficulties in removing the old disc and the valve was returned to service.

A review of unit work documents indicates the bypass system was one of the last systems worked on prior to startup for preoperational testing. Based on this review and the fact that system flushes are performed as part of the Preoperational Test Program, it is concluded that the occurrance of this loose tool in the Unit's piping is an isolated event.

During this occurrance, primary system integrity was maintained and no release of radiation occurred; the health and safety of the public was not affected.



June 27, 1984

Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION LICENSEE EVENT REPORT 84-008-00 ER 100450 FILE 841-23 PLA-2244

Docket No. 50-388 License No. NPF-22

Attached is Licensee Event Report 84-008-00. This event was determined to be reportable per 10CFR50.73(a)(2)(iv) in that while shuting down the Unit 2 reactor, the #1 Turbine Bypass Valve would not close past the 18% open position, and an RPS manual scram was initiated to shut down the unit.

bonom for H.W. Keiser

Superintendent of Plant-Susquehanna

BLW/pjg

cc: Dr. Thomas E. Murley
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
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