

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB-7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Indian Point 3	DOCKET NUMBER (2) 05000286	PAGE (3) 1 OF 4
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TITLE (4) Manual ESF Actuation of Auxiliary Feedwater Pumps due to Main Boiler Feedwater Pumps Tripping

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
9	9	97	97	-- 023 --	00	10	9	97	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)					
POWER LEVEL (10) 004	20.405(a)(1)(i)	50.36(c)(1)		50.73(a)(2)(v)	73.71(c)					
	20.405(a)(1)(ii)	50.36(c)(2)		50.73(a)(2)(vii)	OTHER					
	20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)					
	20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)						
	20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)										
NAME Mr. Edward Armando, Operations Manager	TELEPHONE NUMBER (Include Area Code) (914) 736-8201									

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
X	SJ	MSC	F180	A						

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	NO						

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

During plant startup on September 9, 1997, with the plant at approximately 3-4 percent reactor power, both Main Boiler Feedwater Pumps (MBFP) trip alarms were received in the Control Room. The Operators manually started the Auxiliary Feedwater Pumps (AFWP), thereby initiating a manual ESF actuation prior to the automatic response. All safety related and major plant equipment involved in the trip operated as expected. The reason for the concurrent trip of both pumps is due to a high discharge pressure on the common line for both MBFPs caused by the increased speed of 32 MBFP. The cause of the event is believed to be a failure of the manual control station for the MBFP No. 32. Corrective actions included removing the controller and testing the output. The output was found to be stable. However it was determined that when the "T" handle was manually moved left or right it did not return to its center position smoothly. This can best be described as a slight drag compounded by a weak spring in the "T" handle switch. The controller was replaced by a new controller. MBFP No. 32 and the replaced controller were operating satisfactorily. Plant startup continued after the controller was replaced. This event did not affect the health and safety of the public.

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TEXT CONTINUATION

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

The Energy Industry Identification System Codes are in brackets, { }.

DESCRIPTION OF THE EVENT

During plant startup on September 9, 1997, at approximately 1538 hours, with the plant at approximately 3-4 percent reactor power, both Main Boiler Feedwater Pumps {SJ} trip alarms were received in the Control Room (CCR){NA} and the Operators manually started the Auxiliary Feedwater Pumps (AFWP) {BA}, thereby initiating a manual ESF actuation prior to the automatic response. The reason for the concurrent trip of both pumps was due to a high discharge pressure on the common line for both MBFPs due to the increased speed of 32 MBFP. Prior to the trip, the Main Turbine {TA} had been manually tripped by the CCR operators due to a lube oil {TD} leak in Exciter Bearing No. 11.

Operations initiated Deviation Event Report No. 97-2258 and a 4-hour non-emergency report to the NRC.

At the time, indicated feedwater flow was maintained by manually adjusting the bypass feedwater regulating valves. Main Boiler Feedwater Pumps No. 31 and 32 were in manual. The boiler feedwater pump trip alarms annunciated as the feedwater flow was being adjusted. The Reactor Operator (RO) observed that the setting on No. 31 MBFP remained steady however, the setting for MBFP No 32 had changed, as indicated on the Lovejoy {L253} Digital Display. The manual Foxboro {F180} station for MBFP No. 32 also indicated full scale deflection (greater than 100 percent). Upon noticing the pump ramping, the RO was able to reduce the controller output by moving its "T" handle to the left but was unsuccessful at correcting the overspeed condition. Based on the observations of the RO, action was taken to manually start the AFWPs. This was accomplished prior to their auto-start. Subsequent review identified MBFP speed ramped for approximately 2.5 minutes. Operations is evaluating if this was a human performance event. Plant startup commenced after replacement of the control station for MBFP No. 32.

CAUSE OF THE EVENT

The cause of the event is believed to be a failure of the manual control station for the MBFP No. 32. The controller was removed and bench tested. The controller output was found to be stable. However, when the "T" handle was manually moved left or right it did not return to its center position smoothly. This can best be described as a slight drag compounded by a weak spring in the "T" handle switch.

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CORRECTIVE ACTION

The following corrective actions have or will be performed to address the cause of this event:

- The Foxboro controller for the MBFP No. 32 was replaced with a new controller. The replaced controller and MBFP No. 32 was operating satisfactorily.
- Operations will evaluate Human Performance Aspects of this event. Specifically, the speed of MBFP No. 32 was in a ramp increase for 2.5 minutes without being recognized by the CCR Operator.

ANALYSIS OF EVENT

This event is reportable under 10 CFR 50.73 (a) (2) (iv). The licensee shall report any event or condition that resulted in a manual or automatic actuation of an Engineered Safety Feature (ESF), including the Reactor Protection System (RPS). During normal plant operation, both Main Boiler Feedwater Pump trip alarms were received in the Control Room. The Operators manually started the Auxiliary Feedwater Pumps, thereby initiating a manual ESF actuation prior to the automatic response. This action is reportable under the above criteria.

A review of Licensee Event Reports (LERs) for the past two years for similar events in which there was an actuation of an auxiliary feedwater pump identified Licensee Event Reports 97-001, 96-001, and 96-015.

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SAFETY ANALYSIS

This event did not effect the health and safety of the public. There was no actual safety significance because:

- * Reactor power throughout the whole MBFP trip/ESF actuation scenario remained stable and leveled out at 2 percent reactor power. This reflects the fact that the steam dump valves were working as designed.
- * When the plant is at full power, both main boiler feedpumps are operating in automatic. The Lovejoy system will stabilize and keep the flow at 100 percent, and is designed to stop the pumps from going into an overspeed condition. The feed regulating valves would regulate the flow from the pumps.

If, at full power, the main boiler feedwater pumps trip, the plant response to a MBFP trip is a design basis event that has been analyzed and for which the plant is designed. The AFWPs would have responded accordingly and kept the plant within its design basis.