

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TY 30 57 CAT 58

REPORT SOURCE L 6 0 5 0 0 0 2 6 1 7 0 6 1 1 8 1 8 0 7 1 0 8 1 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

On June 11, 1981, at 1145 hours, during plant startup, "A" Motor Driven AFW Pump was noted to be tripped due to low discharge pressure while feeding the steam generators. On June 16, 1981, at 2115 hours, with unit at 93% power, "A" AFW pump tripped during performance of Periodic Test 22.1C. The remaining operable AFW pump provides 100% feedwater capacity and so there was no threat to public health and safety. Since the Steam Driven AFW Pump was inoperable, this resulted in operation in a degraded mode permitted by Tech. Spec. 3.4.3 which is reportable pursuant to 6.9.2.b.2.

7	8	9											10				
SYSTEM CODE			CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE					COMP. SUBCODE		VALVE SUBCODE			
H H (11)			E (12)		B (13)		P U M P X X (14)					B (15)		Z (16)			
9 10			11		12		13 18					19		20			
0 9			1		0 1 6		0 3					L		0			
7 8			21		24 26		28 29					30		32			
LER/RO REPORT NUMBER			EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE					REPORT TYPE		REVISION NO.			
(17)			8 1		0 1 6		0 3					L		0			
21 22			23		24 26		27 28 29					30 31		32			
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER	
B (18)		Z (19)		Z (20)		Z (21)		0 0 0 0 (22)		Y (23)		N (24)		N (25)		W 3 1 8 (26)	
33 34		35 36		37 38		39 40		41 42		43 44		45 46		47 48		49 50	

1 0 After the first pump trip, the discharge valve was readjusted. After the second

1 1 pump trip, the cause of both trips was determined to be backleakage through motor

1 2 operated discharge valve V2-16A and check valve AFW-40 which created steam binding

1 3 within the pump casing. These valves were reworked which reduced the backleakage.

1 4 Additionally, as a precautionary measure, the pump casing is being vented hourly.

1	5	C	28	0	0	0	29	NA	30	A	31	Operator Observation	32
1	6	Z	33	Z	34	NA	35	NA	36				
1	7	0	0	0	37	Z	38	NA	39				
1	8	0	0	0	40	NA	41						
1	9	Z	42	NA	43								

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PDR ADDCK 05000261
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NRC USE ONLY

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Supplemental Information

for

Licensee Event Report 81-16

1. Cause Description and Analysis:

On June 11, 1981, at 1143 hours, during plant startup and the reactor critical, "A" Main Feedwater Pump was secured for repair of a drain valve leak on "6B" Feedwater Heater. Both Motor Driven Auxiliary Feedwater Pumps started automatically as a result. "B" Auxiliary Feedwater (AFW) pump was secured and "A" AFW Pump alone was used to feed the steam generators. At 1145 hours, it was noted that "A" AFW pump had tripped on low discharge pressure. The operators immediately went to the pump room, readjusted the discharge valve throttled to prevent pump runout, and restarted the pump satisfactorily at 1215 hours. The trip was thought to have been caused by an improperly positioned discharge valve. On June 16, 1981, at 2115 hours, with the unit at 93% power, "A" AFW pump tripped during the performance of Periodic Test 22.1C. Since the pump was hot (indicating possible backleakage and pump casing vapor binding) the casing was vented, the pump was restarted, and the test was satisfactorily completed at 2132 hours. After a review, it was determined that both pump trips were due to cavitation caused by steam as a result of backleakage through motor operated discharge valve V2-16A and check valve AFW-40.

During both events, "B" AFW pump was operational and capable of supplying the necessary feedwater. For this reason there was no threat to the public health and safety. Since the Steam Driven AFW pump was inoperable during this time, the failure of "A" AFW pump resulted in operation in a degraded mode permitted by Technical Specification 3.4.3 which is reportable pursuant to 6.9.2.b.2.

2. Corrective Action

After the first pump trip, the discharge valve was readjusted. After the second pump trip, the pump casing was vented. In both cases, the pump was successfully restarted.

3. Corrective Action to Prevent Recurrence:

The motor operated discharge valve (V2-16A) and check valve (AFW-40) were repaired in an effort to stop the backleakage. The backleakage, as indicated by pump casing temperature, was reduced low enough to preclude steam binding of the pump. However, as an added precaution, the auxiliary operators were instructed to vent the pump casing as necessary on an hourly basis. This will continue until the next outage of sufficient length for a thorough investigation and the resolution of the backleakage problem.