



December 21, 1976

PRN-LI-76-305

*Central File
50-335*

Mr. Norman C. Moseley, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
230 Peachtree Street, N.W., Suite 818
Atlanta, Georgia 30303

Dear Mr. Moseley:

REPORTABLE OCCURRENCE 335-76-43
ST. LUCIE UNIT 1
DATE OF OCCURRENCE: AUGUST 13, 1976

STEAM GENERATOR FEED RING -
UPDATE REPORT NO. 1

The attached Licensee Event Report is being submitted to update
our initial report of August 26, 1976.

Very truly yours,

for J.R. Benson
A. D. Schmidt
Vice President
Power Resources

MAS/cmp

Attachment

cc: Robert Lowenstein, Esquire
Director, Office of Inspection and Enforcement (40)
Director, Office of Management Information and
Program Control (3)

Dec

CONTROL BLOCK:

UPDATE #1

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME										LICENSE NUMBER										LICENSE TYPE										EVENT TYPE																													
F L S L S 1										0 0 - 0 0 0 0 0 0 - 0 0										4 1 1 1 1										0 1																													
8 9 14										15 25										25 30										31 32																													
Supplementary																																																											
CATEGORY										REPORT TYPE										REPORT SOURCE										DOCKET NUMBER										EVENT DATE										REPORT DATE									
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8 57 58										59 60										61 68										69 74										75 80																			

EVENT DESCRIPTION

During a special inspection of Steam Generators "A" and "B" in order to accomplish tack welding of the standpipes for the feed ring, three standpipes were found missing in the "A" S/G. The missing standpipes were retrieved and one further standpipe was removed for inspection and analysis. No other discrepancies were found in the "A" S/G. No

SYSTEM CODE		CAUSE CODE		COMPONENT CODE				PRIME COMPONENT SUPPLIER		COMPONENT MANUFACTURER				VIOLATION	
C H		B		H T E X C H				N		C 4 9 0				N	
8 9 10		11		12 17				43		44 47				48	

CAUSE DESCRIPTION

As previously reported, the cause was cyclic fatigue and failure. The failed standpipes from the "A" S/G were inspected at the vendor's manufacturing facility. The investigation disclosed the following:

FACILITY STATUS		% POWER		OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
I		0 0 0		N/A		C		N/A	
8 9		10		12 13		44 45		45 80	
FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE		AMOUNT OF ACTIVITY		LOCATION OF RELEASE			
Z		Z		N/A		N/A			
8 9		10 11		44		45		60	

PERSONNEL EXPOSURES

NUMBER		TYPE		DESCRIPTION	
0 0 0		Z		N/A	
8 9 11		12 13			

PERSONNEL INJURIES

NUMBER		DESCRIPTION	
0 0 0		N/A	
8 9 11		12 80	

PROBABLE CONSEQUENCES

N/A

LOSS OR DAMAGE TO FACILITY

TYPE		DESCRIPTION	
Z		None - Plant was shut down for fuel inspection and steam generator modification was completed before the fuel inspection was.	
8 9 10		80	

PUBLICITY

N/A

ADDITIONAL FACTORS

See Page two for continuation of Event Description and Cause Description.

NAME: M. A. Schoppman

PHONE: 305/552-3779

EVENT DESCRIPTION (Continued)

discrepancies were found in the "B" S/G.

CAUSE DESCRIPTION (Continued)

The failed standpipes were in regions immediately adjacent to the feed ring header where the flow rate and turbulence in the feedwater ring is the greatest.

All three failed standpipes had evidence of flow induced vibrations as indicated by rubbing contact between the O.D. of the standpipe and the I.D. of the nipple at the junction with the feedwater ring.

One standpipe had become unthreaded due to vibration. The other two failures resulted from fracture of the nipple. In each case the fractured area contained fatigue cracks which initiated the failure.

Corrective action has been taken as follows: The 74 standpipes were removed from each S/G thus eliminating the vibration mechanism. The 74 holes in the bottom of each feed ring were welded closed. Holes were cut in the top of each feed ring and 36 four inch, 90° straight elbows were installed in each S/G, with the open end facing the interior of the S/G. This meets the original design intent of preventing the feed rings from draining while still allowing feed water flow. This action was processed in accordance with the requirements of 10 CFR 50.59.