

USNRC REGION II  
ATLANTA, GEORGIA



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April 18, 1983  
L-83-243

Mr. James P. O'Reilly  
Regional Administrator, Region II  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, Suite 2900  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

RE: St. Lucie Unit 2  
Docket No. 50-389/50.55(e) 83-006  
BAM System SIAS Pump Start Logic

On March 18, 1983, Florida Power & Light Company notified NRC, Region II of a potential 10 CFR 50.55(e) condition existing at the site involving BAM System SIAS Pump Start Logic.

Pursuant to the requirements of 10 CFR 50.55(e), a final report is attached.

Very truly yours,

Robert E. Uhrig  
Vice President  
Advanced Systems and Technology

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I. SUMMARY

During Safeguards testing the Boric Acid Make-up (BAM) pumps were automatically started, through the Safety Injection Actuation Signal (SIAS), with offsite power available. Because of their present design logic, the BAM pumps started five (5) minutes after initiation of the SIAS. Such operation could create a low suction condition on the charging pumps, if the boric acid gravity feed valves had failed to open, and thus causing the charging pumps to trip.

II. DESCRIPTION

The Boric Acid Make-up pumps and the Boric Acid gravity feed valves provide borated water to the suction of the charging pumps, bypassing the Volume Control Tank. The boric acid gravity feed valves provide a source of suction redundant to the BAM pumps. In order to correct the situation described under "Summary", the BAM pumps are required to follow the charging pumps logic, which start immediately on SIAS with offsite power available and five (5) minutes after SIAS actuation on loss of offsite power.

III. CORRECTIVE ACTION

The control logic for the BAM pumps has been modified, via DCN's 513.2518 and 513.2648 to follow the charging pumps logic, ie, the BAM pumps will now start together with the charging pumps immediately on SIAS actuation with offsite power available and will start five (5) minutes after SIAS actuation on loss of offsite power.

IV. SAFETY IMPLICATION

Delayed start of the BAM pumps, five (5) minutes on SIAS actuation with offsite power available, could create a low suction pressure condition on the charging pumps, if the boric acid gravity feed valves fail to open. This low suction pressure condition could trip the charging pumps, preventing boric acid injection on SIAS, and hence loss of boric acid injection into the primary loop of the reactor.

V. CONCLUSION

With the above mentioned corrective action, this item is resolved and this item closed regarding 10 CFR 50.55(e) reporting requirements. All pertinent documentation regarding this concern will be maintained at the site.