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FPL
FLORIDA POWER & LIGHT COMPANY

May 17, 1982
L-82-204

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

Re: St. Lucie Unit 2
Docket No. 50-389
Diesel Generator Fuel Oil Day Tank
Suction Check Valves Concern

On February 17, 1982, Florida Power and Light Company (FPL) notified the Region II Office of Inspection and Enforcement, in accordance with the requirements of 10 CFR 50.55(e), of a potential deficiency regarding Diesel Generator Fuel Oil Day Tank Suction Check Valves. On March 15, 1982, Florida Power and Light Company notified Region II that a final report on the issue would be submitted by May 17, 1982.

Attached please find our final resolution of this matter.

Very truly yours,

Jack E. Vessely for

Robert E. Uhrig
Vice President
Advanced Systems and Technology

REU/RAK/ga

Attachment

cc: Director of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555 (w/attach)
Harold F. Reis, Esquire

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ATTACHMENT

I. SUMMARY:

During testing of the diesel generator, a no flow condition was encountered in the fuel oil system. The cause was determined to be spring loaded piston lift check valves located in the suction lines of the fuel oil pumps. The diesel generator vendor was contacted. An evaluation was performed and corrective action implemented.

Per the requirements of 10 CFR 50.55(e) this concern has beem deemed reportable. This final report is being submitted to provide the NRC with a description of the deficiency and the corrective actions that have been implemented.

II. DESCRIPTION:

During start-up testing of the diesel generators it was discovered that spring loaded piston lift check valves provided by the diesel generator vendor, impeded the flow of diesel fuel oil. These valves are located on the suction side of the motor driven fuel oil pumps, and are provided to keep the line filled to protect against pump cavitation.

An investigation revealed that pump suction was incapable of lifting the valve spring consequently the valve would not open. The vendor (Power Systems Division of Morrison Knudson) was contacted to evaluate the cause of this concern.

III. CORRECTIVE ACTION:

Power Systems Division has performed calculations which indicate that removal of the valve spring will insure proper valve operation. The valve springs have been removed and preliminary tests were performed with successful results. Final field tests confirmed proper function of the valves with the springs removed. The tests included operation at all diesel generator loads. Also a successful diesel fast start was performed following five (5) days of standby time which confirmed that the valve maintained fuel oil in the line.

IV. SAFETY IMPLICATIONS:

We have evaluated this concern and determined that it constitutes a deficiency in final design released for construction and a deviation in performance specifications of a basic component. Also if left uncorrected this deficiency could have adversely affected safe operation of the plant by isolating the diesel generators from their respective day tanks thereby degrading the reliability of the onsite power supply system. We deem this concern to be reportable under 10 CFR 50.55(e).

V. CONCLUSION:

With the above metnioned corrective actions the deficiency is resolved and the item closed regarding part 55(e) reporting requirements. All pertinent documentation regarding this item will be maintained at the site.