P. O. BOX 013100, MIAMI, FLORIDA 33101

Reactor Facilities Br.

FLORIDA POWER & LIGHT COMPANY

May 7, 1976
L-76-183

Mr. John G. Davis, Acting Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington DC 20555

Dear Mr. Davis:

Re: Non-Routine Non- Radioactive Effluent Report (10-day Report) 50-335

Transmitted herewith, in accordance with the St. Lucie Unit No. 1 Environmental Technical Specifications, Section 5.6.2.a.1, is a copy of the subject report concerning main circulating water system levels at St. Lucie Unit No. 1.

Yours very truly,

J. A. De Mastry for

Robert E. Uhrig
Vice President

REU:tg
Attachment

cc: Mr. Norman C. Mosely
Jack R. Newman, Esquire

C 0563

NRC LICENSEE REPORT - ENVIRONMENTAL TECHNICAL SPECIFICATIONS, APPENDIX B
FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT #1
MAIN CIRCULATING WATER SYSTEM WATER LEVELS DURING FOUR PUMP OPERATION
MAY 7, 1976

A. Description:

During initial testing of main circulating water pumps earlier this year with all four pumps in operation, a higher than anticipated discharge canal level was observed. At periods of high tide, levels approached and exceeded the spillover point. During this period, no heat was being added to the circulating water system.

A description of the ciruclating water system is presented in Section 2.3.3 of the Unit 1 Environmental Report, and Figure 2.3.3-4, as submitted by Supplement 9 to the ER, shows the system configuration and design water levels.

On April 28, 1976, Mr. K. N. Harris, St. Lucie Plant Manager, determined that this occurrence had a potential public interest concerning environmental impact from plant operations. On April 29, 1976, and as required by Section 5.6.2.a of the Environmental Technical Specifications, Mr. C. D. Henderson, Manager of Environmental Engineering, reported this occurrence to Mr. Gibson of Region II of the NRC.

Analysis:

The circulating water system canal levels are not as predicted by design or model studies. The results of the preliminary investigation indicate the causative factors to be: a) ocean tidal levels higher than accounted for in the plant design; combined with b) marine fouling that has built up in the discharge pipe during the period of construction and initial operation of the circulating water system.

Evaluation - Extent and Magnitude:

The situation may present a restriction on Unit power to stay within applicable temperature limitations, if throttling of the circulating water pumps is necessary to prevent spillover at high tides. Limited spillover which occurred at high tides into the mangrove swamp area was evaluated and deemed to have no significant environmental impact.

B. Cause:

See Analysis above.

C. Corrective Action:

Circulating Water Pumps were shut down as soon as it was known that the levels had exceeded the spillover point. The circulating water system has been operated at reduced flow to prevent more spillover into the mangrove area. Mechanical cleaning of the discharge pipe which is expected to require about 5 days, is planned for sometime in May or June. This will remove the marine growth and restore the pipe surface to the design condition.