Florida Power & Light Company, 6351 S. Ocean Drive, Jensen Beach, FL 34957

December 27, 1999

L-99-277
10 CFR 50.4

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: St. Lucie Unit 2
Docket No. 50-389
Follow-up Report
License Condition 2.F

This letter provides the Florida Power and Light Company (FPL) written follow-up report due within 14 days of St. Lucie Unit 2 exceeding the License Condition 2.C. (1) Maximum Power Level. This report is required by St. Lucie Unit 2 Operating License Condition 2.F. During the morning of December 13, 1999, St. Lucie Unit 2 exceeded its maximum licensed power level of 2700 megawatts thermal (MW_t) by approximately 0.4% rated thermal power (approximately 11.2 MW_t). The maximum actual power was calculated to be 100.413% of rated thermal power. During the period of time that power exceeded 100%, the maximum indicated power by the plant computer (DDPS) calorimetric log was 99.87% rated thermal power.

The St. Lucie Unit 2 steam generator blowdown system was removed from service and isolated for maintenance between 2000 hours and 2100 hours on December 12, 1999. When blowdown flow was decreased to zero, indicated power also decreased, as was expected. Accordingly, the licensed control room operators increased indicated power to 100%. The plant computer (DDPS) calorimetric log for blowdown at 2100 hours indicated essentially zero, as did the blowdown flow-indicating controller. At 0800 hours on December 13, 1999, while recording performance data, a FPL system engineer noted that the indicated feed flow was higher than normal for 100% power. On further inspection, it was noted that indicated flow on the blowdown controllers was zero but the DDPS calorimetric log was indicating a total of 50,000 lbm/hr blowdown flow. The erroneously high blowdown flow input to the calorimetric caused indicated DDPS core power to be lower than actual core power. The system engineer informed the assistant nuclear plant supervisor (ANPS) (Unit 2 control room senior reactor operator (SRO)) and the nuclear plant supervisor (NPS) (shift supervisor SRO). Reactor power was reduced by approximately 0.5% and the blowdown flow transmitters to the DDPS were vented. On the venting of the flow transmitters, the DDPS-indicated blowdown flow returned to essentially zero. FPL instrumentation and control (I&C) personnel indicated that the transmitters appeared to be under a vacuum, which produced the erroneous blowdown flowrate.

IE22

Initial review of the DDPS data by FPL indicates that the hourly average power level exceeded 100% by approximately 0.4%. This exceeded the licensed maximum power of the Unit 2 Operating License Condition 2.C. (1). In accordance with License Condition 2.F. of the Operating License, this was reported to the NRC Regional Administrator's designee (L. Wert, NRC Region II) on December 13, 1999, and followed by facsimile. The event has been entered into the plant's corrective action program (Condition Report (CR) 99-2488). The root cause will be determined and long-term corrective actions identified in accordance with the corrective action program.

Please contact us if there are any questions about this submittal.

Very truly yours,

J. A. Stall
Vice President
St. Lucie Plant

JAS/GRM

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant