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FLORIDA POWER & LIGHT COMPANY

Turkey Point Plant
March 19, 1973

Mr. John F. O'Leary, Director
Division of Reactor Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

TURKEY POINT UNIT NO. 3
DOCKET NUMBER 50-250
ABNORMAL OCCURRENCES NO. 3-73-2 AND 3-73-3

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Dear Mr. O'Leary:

In accordance with Technical Specification 6.6.2 a(1) and in amplification of Mr. J. K. Hays' telephone notification to Mr. R. C. Lewis, Region II, Directorate of Regulatory Operations on March 10, and my confirming telegram to Director, Region II, Directorate of Regulatory Operation, on March 10, this report is submitted.

Both Abnormal Occurrences occurred during functional testing of the integrated Unit 3 and Unit 4 safeguards system (Preoperational Procedure T-4000.1, Revision 2) following extensive modifications to the plant DC systems. Unit 3 was in cold shutdown and Unit 4 had no fuel in the reactor. During this testing period Unit 4 was postulated as the accident unit and Unit 3 as the hot shutdown unit. The initial conditions for the below tests were that the B diesel generator was disabled and the 4B 125 VDC Load Center was de-energized.

ABNORMAL OCCURRENCE 3-73-2

At approximately 9 p.m., March 9, a simulated safety injection signal was imposed on Unit 4, followed in three seconds by manual interruption of all off-site power to both Units. The electrical and safeguards systems functioned as designed with the A diesel generator supplying emergency power and sequencing all safeguards loads on the A train of Unit 4. On Unit 3, the 3A Component Cooling Water Pump failed to start automatically. All other Unit 3 equipment functioned as designed.

Investigation revealed contacts in the breaker closing circuit welded closed. As immediate corrective action, the welded contacts were removed and another set of normally open contacts on the same relay were connected in place of the welded set. The breaker was then satisfactorily tested.

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Investigation is currently in progress to determine what caused the contacts to weld together. Nothing conclusive has yet been found, but the investigation thus far tends to rule out any generic problems. A follow up report will be submitted when the cause has been found and the corresponding permanent corrective action determined.

The breaker failure did not degrade nuclear safety or adversely affect the health and safety of the public because the unit was at cold shutdown. However, a second component cooling pump automatically starts during sequencer operation and one pump is sufficient to carry the component cooling heat load at hot shutdown (as well as at power). Thus, even had the failure occurred during an accident condition on Unit 4, nuclear safety would not have been adversely affected.

ABNORMAL OCCURRENCE 3-73-3

At approximately 3:00 a.m., March 10, the test which resulted in Abnormal Occurrence 3-73-2 was repeated with the 3A Component Cooling Water Pump operable. During this test the A diesel generator failed to start, resulting in total loss of AC power (except for inverter fed instrument AC) to both units. Off-site power was restored manually and investigation revealed that the A diesel generator air start solenoid valve had failed to open. As immediate corrective action the solenoid valve was replaced and the engine tested satisfactorily. This part of the integrated safeguards test was then satisfactorily repeated.

Investigation has not yet revealed why the solenoid valve failed. In response to our inquiries a vendor representative has stated the valve was designed for service in systems up to 200 psi. The diesel air start system normally operates at approximately 230 psi. It is not known if this discrepancy caused the failure, but the vendor is shipping modification kits which will make the valves suitable for service up to 250 psi. A follow up report will be sent when the cause of the valve failure and appropriate corrective action have been determined.

The diesel failure did not adversely affect nuclear safety nor were the health and safety of the public affected because Unit 3 was in cold shutdown and power was promptly restored by the operators. In an actual accident condition, this occurrence is not credible because the B diesel being disabled represents a

single failure and the solenoid valve failing is a second failure. The plant was not designed to be protected against double failures.

Very truly yours,

FLORIDA POWER & LIGHT COMPANY

J R Bensen

for A. D. Schmidt
Director of Power Resources

ADS:DWJ:jw

cc: Mr. John Davis, Director
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