July 30, 2004

Mr. J. A. Stall
Senior Vice President, Nuclear and
Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

SUBJECT: TURKEY POINT PLANT, UNIT 4 - REQUEST FOR ADDITIONAL INFORMATION REGARDING INOPERABLE ROD POSITION INDICATION (TAC NO. MC3889)

Dear Mr. Stall:

By letter dated July 28, 2004, Florida Power and Light Company requested an amendment to revise the Technical Specifications to allow the use of an alternate method of determining rod position for a control rod with an inoperable rod position indication.

Based on our review of your submittal, the NRC staff finds that a response to the enclosed request for additional information is needed before we can complete the review.

This request was discussed with your staff on July 30, 2004, and it was agreed that a response would be provided within 7 days of the issuance of this letter.

If you have any questions, please contact me at (301) 415-2315.

Sincerely,

/RA/

Eva A. Brown, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-251

Enclosure: Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

ANALOG ROD POSITION INDICATION FOR CONTROL ROD F-8 EXIGENT AMENDMENT

FLORIDA POWER AND LIGHT

TURKEY POINT, UNIT 4

DOCKET NO. 50-251

Reference: Letter from T.O. Jones, Florida Power and Light (FPL), to U.S. Nuclear Regulatory Commission, "Inoperable Rod Position Indication," dated July 28, 2004.

1. In FPL's "Justification for Proposed TS [Technical Specification] Change" section of the exigent amendment request, the licensee stated that "Following a reactor trip, the analog rod position indication system is used to verify that all rods have fully inserted. Emergency boration is required if more than one rod fails to insert." The licensee also states that the inoperability of the position indication system will prevent verification that control rod F-8 has inserted following a reactor trip. The licensee contends that heightened awareness of this condition by operators will ensure that emergency boration is initiated if another control rod other than F-8 does not fully insert during a reactor trip. However, there is a concern regarding the reliance on emergency procedures for a known condition under which the licensee intends to operate the plant, satisfies the intent of maintaining appropriate shutdown margin (SDM). Additionally, the inoperable rod position indication will prevent the licensee from performing TS surveillance requirement 4.1.3.1.2 on control rod F-8 to ensure that the control rod remains able to be tripped. Therefore, the staff requests the licensee demonstrate that the required SDM of TS 3.1.1 will be maintained in the event that control rod F-8 and the worst case stuck rod remain fully withdrawn following a reactor trip.

2. In the July 28 submittal, FPL provided a brief description of the proposed alternate monitoring equipment. The licensee stated that it will install alternate monitoring equipment to track parameters of the stationary gripper coil of the Control Rod Drive Mechanism of control rod F-8. The staff requests the licensee provide the following additional information on the operation and monitoring of these alternate parameters:

   a. The specific parameters being monitored (i.e., gripper coil current, voltage, etc.), as well as a description of the equipment to be used to measure the specific parameters and record the output.

   b. A summary of who will be responsible for reviewing the output data from the alternate monitoring equipment and how these individuals will identify the described "changes in state" of the gripper coils.

3. The licensee concluded that the fault in the analog rod position indication (ARPI) for control rod F-8 occurred at a location that cannot be safely reached for repair during power operations. The ARPI system typically provides input to a number of alarms and instrumentation systems in the control room. The staff requests the

licensee to provide a summary of all the indications and alarms affected by the inoperable ARPI for control rod F-8. Additionally, the staff requests that for each affected indication or alarm, the licensee describe compensatory measures that will be used to offset the loss of its features.

4. Since the failure of the ARPI for control rod F-8, the licensee has been complying with TS 3.1.3.2, Action Statement a., which requires the operators to "[d]etermine the position of the nonindicating rod(s) indirectly by the movable incore detectors at least once per 8 hours and within one hour after any motion on the nonindicating rod which exceeds 24 steps in one direction since the last determination of the rod's position." This results in the licensee exercising the movable incore detection system approximately 90 times per month. The licensee has cited excessive wear on the movable incore detectors as a justification for monitoring of the gripper coil position. The licensee's justification implies a potential reduction in safety margin or fatigue-induced equipment failure will occur from continued use of the incore movable detectors. The staff requests the licensee provide a detailed description of the potential consequences of continued use of the movable incore detectors. This should include, as appropriate, postulated failure methods, estimated fatigue times, and projected failure consequences. Additionally, the licensee should identify whether the projected failure methods and consequences are bounded by any existing transient or accident analyses.

TURKEY POINT PLANT

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