August 20, 2003

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 UNIT 3 - REVIEW OF STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT FROM THE FALL 2001 OUTAGE (TAC NO. MB6492)

Dear Mr. Stall:

By letters dated October 20, 2001, January 24, and October 7, 2002, Florida Power and Light Company (FPL, the licensee) submitted reports summarizing the steam generator (SG) tube inspections performed during the End of Cycle (EOC) 18 (fall 2001) refueling outage for Turkey Point Unit 3. These reports were submitted in accordance with Turkey Point Unit 3 Technical Specification (TS) Sections 4.4.5.5.b and 6.9.2. Additional Information regarding the results of the EOC 18 tube inspection can be found in an April 5, 2002, letter from the U.S. Nuclear Regulatory Commission (NRC) to the licensee.

A summary of the NRC staff's evaluation of the EOC 18 refueling outage SG tube inspection results is enclosed. The NRC staff concluded that FPL provided the information required by the Turkey Point Unit 3 TS and that no additional follow-up is required at this time.

Sincerely,

/RA/

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

Docket No. 50-250

Enclosure: As stated

cc w/enclosures: See next page

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OFFICE OF NUCLEAR REACTOR REGULATION

STAFF ASSESSMENT OF FALL 2001 (END OF CYCLE 18)

STEAM GENERATOR INSPECTION REPORT

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNIT NO. 3

DOCKET NO. 50-250

By letters dated October 20, 2001, January 24, and October 7, 2002, Florida Power and Light Company (the licensee) submitted reports summarizing the steam generator (SG) tube inspections performed during the End of Cycle (EOC) 18 (fall 2001) refueling outage for Turkey Point Unit 3. These reports were submitted in accordance with Turkey Point Unit 3 Technical Specification (TS) Sections 4.4.5.5.b and 6.9.2. A summary of the U.S. Nuclear Regulatory Commission (NRC) staff's evaluation of the EOC 18 refueling outage tube inspection results is provided below.

Turkey Point Unit 3 has three (SG-3A, SG-3B, and SG-3C) Westinghouse Model 44F SGs. The SGs utilize a hydraulic tubesheet expansion method and have 405 stainless steel tube support plates with broached quatrefoil holes. The SGs began operation in 1982 and have thermally treated Inconel 600 tubing. The SG tube inspection summary stated that the licensee inspected between 3158 and 3169 tubes full length in each SG using a bobbin probe (essentially 100 percent of the active tubes). In addition to the full-length inspections, the licensee inspected between 1685 and 1820 tubes partial length in each SG using a rotating coil probe (RPC). The RPC partial inspections were performed on approximately 50 percent of the tubes in Unit 3 within the hot-leg top of tubesheet region. A total of 14 tubes were plugged due to the inspection results. Tube plugging activities at the EOC 18 for each SG in Unit 3 are summarized below.

Steam Generator	Total Tubes Plugged	Tubes Preventively Plugged	≥40% Plugged Tubes
3A	1	1	0
3B	11	10	1
3C	2	2	0

Enclosure

The TSs require the licensee to identify the location and percent through-wall thickness (depth) for each imperfection. An imperfection is a deviation from the fabrication requirements and specifications of a tube in regards to contour, dimensions, and finish (TS 5.5.9.4.a.1). The licensee provided a list consisting of the location and percent of wall-thickness penetration for those indications with a through-wall thickness of 20 percent to 39 percent (total of 50 imperfections). An imperfection with a through wall-thickness $\geq$40 percent was reported for SG-3B. The licensee did report the exact location of this imperfection, but did not report the percent through-wall thickness for this imperfection. In future SG tube inspection reports, the NRC staff requests that this information be provided. The licensee noted that the preventively plugged tube in SG-3A was plugged due to wear at the first hot-leg broached support plate. The preventively plugged tubes in SG-3B are stated to be a result of restriction in the u-bend to a Plus Point examination (Row 1 and Column 3), mechanical wear at anti-vibration bar (AVB) AV2 in the u-bend, and mechanical wear at broached support plates. Mechanical wear located at the second hot-leg support plate resulted in the preventively plugged tubes in SG-3C. The indication reported in SG-3B with a through-wall thickness $\geq$40 percent was a result of loose-part wear at the third cold-leg support plate. The depth of the mechanical wear imperfections located at AVBs were measured using the bobbin coil sizing technique. Mechanical wear imperfections located at broached support plates were depth sized using the Plus Point probe data. There were 36 mechanical wear imperfections ($\leq$40 percent) located at AVBs (AV1 thru AV4) left in service. Also, no new “geometry anomalies” or “volumetric/pit like” imperfections were reported to have been identified.

Additional, information regarding the results of the EOC 18 tube inspection are provided in an April 5, 2002, letter from the NRC to the licensee (refer to ADAMS NO. ML020990345). Based on review of the information provided by the licensee, the NRC staff concludes that the licensee provided the required information outlined by the TSs and that at this time no additional information is required. However, the following observation was made by the NRC staff.

- In future SG tube inspection reports, the NRC staff requests that the licensee identify imperfection location and percent through-wall thickness for both 20 percent-39 percent and $\geq$40 percent imperfections.

Mr. J. A. Stall
Florida Power and Light Company

TURKEY POINT PLANT

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