



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

June 15, 2015

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy
P.O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR GENERATING UNIT NO. 3 – REVIEW OF STEAM GENERATOR TUBE INSPECTION REPORT FOR THE CYCLE 27 REFUELING OUTAGE (TAC NO. MF5087)

Dear Mr. Nazar:

By letter dated October 6, 2014, as supplemented by letter dated April 16, 2015, Florida Power & Light Company (the licensee) submitted its steam generator tube inspection report for Turkey Point Nuclear Generating Unit No. 3 (Turkey Point 3) in accordance with Turkey Point Technical Specification (TS) 6.9.1.8. The report summarizes the steam generator tube inspections that the licensee performed April 1-5, 2014, during the Turkey Point 3 Cycle 27 Refueling Outage.

The U.S. Nuclear Regulatory Commission (NRC) staff completed its review of the submittals and concluded that the licensee provided the information required by the TSs. No additional follow-up is required at this time. This completes the NRC staff's efforts for Technical Assignment Control No. MF5087. The enclosure documents the NRC staff's review of the submittals.

M. Nazar

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If you have any questions regarding this matter, please contact me at (301) 415-0489 or audrey.klett@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to be 'A. Klett', with a long horizontal flourish extending to the right.

Audrey L. Klett, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-250

Enclosure:
Review of the Steam Generator Tube
Inspection Report

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REVIEW BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SPRING 2014 STEAM GENERATOR TUBE INSPECTION REPORT

FLORIDA POWER & LIGHT COMPANY

TURKEY POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-250

By letters dated October 6, 2014,¹ and April 16, 2015,² Florida Power & Light Company (the licensee) submitted information summarizing the results of its spring 2014 steam generator (SG) tube inspections performed April 1-5, 2014, at Turkey Point Nuclear Generating Unit No. 3 (Turkey Point 3) during the Cycle 27 Refueling Outage (RFO 27). By electronic mail dated February 20, 2015,³ the U.S. Nuclear Regulatory Commission (NRC) staff requested additional information. By letter dated April 16, 2015, the licensee responded to the request.

Turkey Point 3 has three replacement Westinghouse Model 44F SGs, which were installed in 1982. Each SG has 3,214 thermally treated Alloy 600 tubes with a nominal outside diameter of 0.875 inches and a nominal wall thickness of 0.050 inches. The tubes are hydraulically expanded for the full depth of the tubesheet at each end. The tubes are supported by Type 405 stainless steel support plates with quatrefoil-shaped holes and V-shaped anti-vibration bars.

The licensee provided the scope, extent, methods, and results of its SG tube inspections in its submittals. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings.

After reviewing the information provided by the licensee, the NRC staff has the following comments and observations:

- During RFO 23 in 2007, some slight erosion was observed on the inside of the feedring at the J-tube interface. This was described as “flow induced undercut” in the 2007 SG inservice inspection report. As of the 2014 inspections during RFO 27, the licensee noted that the “flow induced undercut” condition does not appear to have changed over time.
- An axial indication was reported near a hot leg tube end in SG B. This indication is most likely attributed to primary water stress corrosion cracking and was found below the H* distance. The H* distance for Turkey Point 3 is 18.11 inches. Tubes with service-induced flaws located greater than 18.11 inches below the top of the tubesheet do not require plugging. Tubes with service-induced flaws located in the portion of the tube from the top of the tubesheet to 18.11 inches below the top of the tubesheet shall be plugged upon detection.

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML14302A079

² ADAMS Accession No. ML15119A221

³ ADAMS Accession No. ML15054A406

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by its technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant followup actions at this time, because the inspections appear to be consistent with the objective of detecting potential tube degradation. The NRC staff further concluded that the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

M. Nazar

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If you have any questions regarding this matter, please contact me at (301) 415-0489 or audrey.klett@nrc.gov.

Sincerely,

/RA/

Audrey L. Klett, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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*by memorandum

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