



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

September 16, 2019

Mr. Don Moul  
Vice President, Nuclear Division  
and Chief Nuclear Officer  
Florida Power & Light Company  
Mail Stop: NT3/JW  
15430 Endeavour Drive  
Jupiter, FL 33478

SUBJECT: ST. LUCIE PLANT, UNIT NO. 2 – REVIEW OF STEAM GENERATOR TUBE  
INSPECTION REPORT FOR REFUELING OUTAGE 24 (EPID L-2019-LRO-0023)

Dear Mr. Moul:

By letter dated March 22, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19081A146), as supplemented by letter dated August 21, 2019 (ADAMS Accession No. ML19233A273), Florida Power & Light Company (the licensee) submitted information summarizing the results of the fall 2018 steam generator (SG) inspections performed at St. Lucie Plant, Unit No. 2. These inspections were performed during Refueling Outage 24.

The U.S. Nuclear Regulatory Commission (NRC) staff completed its review of the submittal and concluded that the licensee provided the information required by the Technical Specifications. No additional follow-up is required at this time. This completes the NRC staff efforts for EPID L-2019-LRO-0023. The enclosure documents the NRC staff's review of the submittal.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Wentzel".

Michael J. Wentzel, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No.  
50-389

Enclosure:  
Fall 2018 Steam Generator Tube  
Inspection Report

cc: Listserv

REVIEW BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FALL 2018 STEAM GENERATOR TUBE INSPECTION REPORT

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 2

DOCKET NO. 50-389

By letter dated March 22, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19081A146), as supplemented by letter dated August 21, 2019 (ADAMS Accession No. ML19233A273), Florida Power & Light Company (the licensee) submitted information summarizing the results of the fall 2018 steam generator (SG) inspections performed at St. Lucie Plant, Unit No. 2. These inspections were performed during Refueling Outage 24.

St. Lucie Plant, Unit No. 2, has two Model 86/19TI replacement SGs that were manufactured by AREVA and installed in 2007. Each SG has 8,999 thermally treated Alloy 690 tubes with a nominal outside diameter of 0.75 inches and a nominal wall thickness of 0.043 inches. During manufacturing, all tubes were hydraulically expanded at both ends over the full depth of the tubesheet. The tubesheet was drilled on a triangular pitch with tube center-to-center spacing of 1.0 inch. The radius of the row 1 U-bends is 4.134 inches. The U-bends in rows 1 through 15 were stress-relieved after bending. Seven Type-410 stainless tube steel support plates, each 1.181 inches thick with broached trefoil holes, support the vertical section of the tubes. Four sets of anti-vibration bars, each 0.112 inches thick and made from Type-405 stainless steel, support the U-bend section of the tubes.

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

Based on a review of the information provided, the U.S. Nuclear Regulatory Commission (NRC) staff concludes that the licensee provided the information required by its technical specifications. In addition, the NRC staff concludes there are no technical issues that warrant additional follow-up action at this time. This conclusion is based on the fact that the inspections appear to be consistent with the objective of detecting potential tube degradation, and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units. Although the number of wear indications is greater than the number of wear indications found at other AREVA SGs of similar age, the depths of these indications (i.e., the severity) are comparable to those observed at other plants.

SUBJECT: ST. LUCIE PLANT, UNIT NO. 2 – REVIEW OF STEAM GENERATOR TUBE  
INSPECTION REPORT FOR REFUELING OUTAGE 24 (EPID L-2019-LRO-0023)  
DATED SEPTEMBER 16, 2019

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AHuynh, NRR

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**ADAMS Accession No.: ML19242D608**

\*by e-mail

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