



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

April 28, 2015

Vice President, Operations  
Entergy Nuclear Operations, Inc.  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 2 – REVIEW OF THE  
SPRING 2014 STEAM GENERATOR TUBE INSPECTIONS DURING  
REFUELING OUTAGE 21 (TAC NO. MF4866)

Dear Sir or Madam:

By letter dated September 8, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14262A059), Entergy Nuclear Operations, Inc. (the licensee), submitted information summarizing the results of the spring 2014 steam generator (SG) tube inspections performed at Indian Point Nuclear Generating Unit No. 2. These inspections were performed during refueling outage 21. The licensee submitted additional information regarding the spring 2014 SG tube inspections by letter dated January 15, 2015 (ADAMS Accession No. ML15029A298).

The U.S. Nuclear Regulatory Commission staff has completed its review of these reports and has concluded that the licensee provided the information required by Indian Point Nuclear Generating Unit No. 2 Technical Specifications and that no additional followup is required. The staff assessment of the report is enclosed.

Sincerely,

A handwritten signature in black ink, reading "Douglas V. Pickett".

Douglas V. Pickett, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosure:  
Staff Assessment

cc w/enclosure: Distribution via Listserv

REVIEW OF THE SPRING 2014  
STEAM GENERATOR TUBE INSPECTION REPORT  
ENTERGY NUCLEAR OPERATIONS, INC.  
DOCKET NO. 50-247  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

By letter dated September 8, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14262A059), Entergy Nuclear Operations, Inc. (the licensee), submitted information summarizing the results of the spring 2014 steam generator (SG) tube inspections performed at Indian Point Nuclear Generating Unit No. 2 (IP2). These inspections were performed during refueling outage (RFO) 21. The licensee submitted additional information regarding the spring 2014 SG tube inspections by letter dated January 15, 2015 (ADAMS Accession No. ML15029A298).

The IP2 replacement SGs, which were installed during RFO 14 in 2000, are Westinghouse model 44F SGs. All four SGs were inspected during RFO 19. Each SG contains approximately 3,214 thermally treated Alloy 600 tubes, which have a nominal outside diameter of 0.875 inches and a nominal wall thickness of 0.050 inches. The tubes are supported by stainless steel tube support plates with quatrefoil-shaped holes and V-shaped anti-vibration bars (AVBs).

The licensee provided the scope, extent, methods, and results of the IP2 SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings. The U.S. Nuclear Regulatory Commission (NRC) staff has the following notes/observations:

- An AVB position verification study was performed. The purpose was to determine if the AVBs had experienced any inservice movement and to determine whether the AVBs were in their correct positions per the design specifications. The findings of this study showed that the insertion depths had not changed since the baseline examination. The findings of this study have been entered into the licensee's corrective action program.

Based on a review of the information provided, the NRC staff concluded that the licensee provided the information required by its technical specifications. In addition, the staff concluded that there are no technical issues that warrant followup action at this time since 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.

Enclosure

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Sincerely,

/RA/

Douglas V. Pickett, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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**ADAMS Accession No.: ML15106A012**

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