



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

January 7, 2013

Mr. Larry Meyer  
Site Vice President  
NextEra Energy Point Beach, LLC  
Point Beach Nuclear Plant  
6610 Nuclear Road  
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNIT 1 - REVIEW OF THE FALL 2011  
REFUELING OUTAGE STEAM GENERATOR TUBE INSERVICE INSPECTION  
RESULTS (TAC NO. ME8780)

Dear Mr. Meyer:

By letter dated May 29, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12150A287), as supplemented by letter dated September 25, 2012 (ADAMS Accession No. ML12270A037), NextEra Energy Point Beach, LLC (NextEra, the licensee) submitted information summarizing the results of the 2011 steam generator (SG) tube inspections performed during the Fall 2011 refueling outage at the Point Beach Nuclear Plant, Unit 1, for U.S. Nuclear Regulatory Commission (NRC) staff review.

The NRC staff has completed its review of the submittals and concludes that the licensee provided the information required by their technical specifications. No additional follow-up is required at this time. The results of the NRC staff's review and observations are enclosed.

Please direct any inquiries to me at 301-415-3049, or [terry.beltz@nrc.gov](mailto:terry.beltz@nrc.gov).

Sincerely,

A handwritten signature in black ink, reading "Terry A. Beltz", is written over a horizontal line.

Terry A. Beltz, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-266

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

OFFICE OF NUCLEAR REACTOR REGULATION  
REVIEW OF THE FALL 2011 STEAM GENERATOR TUBE INSPECTION REPORT  
POINT BEACH NUCLEAR PLANT, UNIT 1  
DOCKET NO. 50-266

By letter dated May 29, 2012 (Agencywide Documents Access Management System (ADAMS) Accession No. ML12150A287), as supplemented by letter dated September 25, 2012 (ADAMS Accession No. ML12270A037), NextEra Energy Point Beach, LLC (NextEra, the licensee) submitted information summarizing the results of the 2011 steam generator (SG) tube inspections performed during the Fall 2011 refueling outage at the Point Beach Nuclear Plant (PBNP), Unit 1. In addition, the NRC staff summarized a conference call held with the licensee concerning the 2011 SG tube inspections in a letter dated December 7, 2011 (ADAMS Accession No. ML113270240).

PBNP, Unit 1, has two Westinghouse 44F SGs, each containing 3214 thermally-treated Alloy 600 tubes. The SGs were installed during refueling outage 11 in 1983. The tubes have an outside diameter of 0.875 inches, a wall thickness of 0.050 inches, and are supported by six stainless steel tube support plates and a baffle plate. The tube support plate holes are quatrefoil shaped. The U-bend region of the tubes in rows 1 through 8 was stress relieved after bending.

The licensee provided the scope, extent, methods, and results of their 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 tubes in both SGs A and B were inspected this outage.

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

- The licensee reported that two circumferential crack-like indications near hot-leg tube ends were identified in SG "B" and required repair. The indications were approximately 40 degrees in circumferential extent and located approximately 0.1 inch above the tube end in tubes located at row 1, column 48, and row 4, column 41. The indications were confirmed with a Ghent probe and taken out of service with the installation of mechanical (rolled) tube plugs.
- The licensee stated that there were eight distorted support indications (DSI); five in SG "A" and three in SG "B". The DSI indications were dispositioned as single and double land contact wear at broached supports, and sized with the +Point™ rotating pancake coil probe. The licensee stated that the wear depths ranged from 5 to 16 percent through wall.

Enclosure

- Secondary-side inspections were performed in SGs "A" and "B" during the 2011 refueling outage. The inspections in both SGs included the steam drum, feedring, J-nozzles, thermal sleeves, secondary and primary moisture separators, mid-deck extension, hatch, hinges, riser barrels, and top hats.

During secondary-side inspections, the licensee identified burn-through on the interface of the J-nozzle and feedring at J-nozzle 28 in SG "A", and at J-nozzles 7, 11, and 14 in SG "B". The licensee stated that burn-through indications are from construction of the SGs and not a service-induced condition. Furthermore, the licensee indicated that all primary moisture separators were covered in a light coating of magnetite. The licensee provided a correction to its March 29, 2011, letter, in that it should have stated that there were 13 tubes with 14 geometric indications, 10 tubes with wear indications, and 7 tubes with 7 indications not reportable as part of monitoring from previous outages for a total of 30 tubes with 31 indications.

Based on a review of the information provided by the licensee, the NRC staff concludes that the licensee provided the information required by their technical specifications. In addition, the staff concludes that there are no technical issues that warrant follow-up 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.

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Site Vice President  
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Sincerely,

/RA/

Terry A. Beltz, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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As stated

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ADAMS Accession No.: ML12361A134

\* via memorandum dated 12/20/12

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