



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

March 31, 2011

Mr. Preston Gillespie
Site Vice President
Oconee Nuclear Station
Duke Energy Carolinas, LLC
7800 Rochester Highway
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION, UNIT 2, EVALUATION OF 2010 (CYCLE 24)
STEAM GENERATOR (SG) TUBE INSPECTIONS (TAC NO. ME4649)

Dear Mr. Gillespie

By letter dated August 27, 2010 (Agencywide Documents Access and Management System, Accession No. ML102430530), Duke Energy Carolinas, LLC (the licensee), submitted information summarizing the results of the 2010 SG tube inspections at Oconee Nuclear Station, Unit 2 during the Cycle 24 refueling outage.

The U.S Nuclear Regulatory Commission (NRC) staff has completed its review of these reports and concludes that the licensee provided the information required by their technical specifications and that no additional follow-up is required at this time. The NRC staff's review of the reports is enclosed.

Sincerely,

A handwritten signature in black ink that reads "John Stang".

John Stang, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-270

Enclosure:
Evaluation of SG Tube Inspections

cc w/encl: Distribution via Listserv



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

OFFICE OF NUCLEAR REACTOR REGULATION
EVALUATION OF THE 2010 STEAM GENERATOR TUBE INSPECTIONS
PERFORMED DURING THE 2010 REFUELING OUTAGE
OCONEE NUCLEAR STATION, UNIT 2
DOCKET NO. 50-270

By letter dated August 27, 2010 (Agencywide Documents Access Management System, Accession No. ML102430530), Duke Energy Carolinas, LLC (the licensee), submitted the results of their 2010 steam generator tube inspections performed during the Cycle 24 refueling outage at Oconee Nuclear Station, Unit 2 (Oconee 2).

Oconee 2 is a two-loop pressurized-water reactor with once-through steam generators (OTSGs) manufactured by Babcock & Wilcox (B&W), Canada. The Oconee 2 OTSGs are replacement OTSGs that were installed during the 2004 refueling outage. The OTSGs consist of 15,631 thermally treated Alloy 690 tubes that have been hydraulically expanded into the tubesheets to a depth of 13 inches. There are 15 Type 410 stainless steel tube support plates (TSP) with trefoil shaped holes. However, there are some round drilled openings at the 14th TSP.

Widespread wear degradation of the tubing at TSP locations has been observed at all three Oconee units. The licensee provided the scope, extent, methods, and results of their OTSG tube inspections in the document referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

The licensee indicated that the following tubes were plugged:

- OTSG A: 90-124, 91-124, 99-126, 112-102, 128-87, and 151-16
- OTSG B: 56-6, 79-10, 83-8, 90-5, 136-11, and 144-50

In addition, the licensee stated that the array data obtained from the x-probe was only reviewed to characterize selected wear indications (i.e., array data was not reviewed at locations such as expansion transitions or dents/dings since only wear degradation is expected).

Based on a review of the information provided, the Nuclear Regulatory Commission staff concludes that the licensee provided the information required by the 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 that inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Principal Contributor: A. Obodoako, NRR/DCI

Date: March 31, 2011

Enclosure

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Sincerely,

/RA/

John Stang, Senior Project Manager
Plant Licensing Branch II-1
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*Memo submitted by Tech Staff dated

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