

DAVE BAXTER

Vice President Oconee Nuclear Station

Duke Energy

ONO1VP / 7800 Rochester Highway Seneca, SC 29672

864-873-4460

864-873-4208 fax dabaxter@dukeenergy.com

September 16, 2009

U. S. Nuclear Regulatory Commission

Attn: Document Control Desk Washington, D. C. 20555-0001

Subject:

Duke Energy Carolinas, LLC

Oconee Nuclear Station, Units 1, 2, and 3

Renewed Facility Operating License, DPR-38, DPR-47, and DPR-55

Docket Numbers 50-269, 50-270, and 50-287

Duke Response to NRC Letter from Jon Thompson to Dave Baxter, dated August 6,

2009

Reference:

NRC Letter from Jon Thompson to Dave Baxter, PRESSURIZED WATER

REACTOR OWNERS GROUP TOPICAL REPORT BAW-2374, REVISION 2,

"RISK INFORMED ASSESSMENT OF ONCE-THROUGH STEAM

GENERATOR TUBE THERMAL LOADS DUE TO BREAKS IN REACTOR COOLANT SYSTEM UPPER HOT LEG LARGE-BORE PIPING" (TAC NO.

ME1816), dated August 6, 2009

On August 6, 2009, Duke Energy Carolinas, LLC (Duke) received the referenced letter, which requests a response within 30 days. BAW-2374, Revision 2 is not part of the current licensing basis for the Oconee Nuclear Station, Units 1, 2 and 3. Duke's written response is provided below to support resolution of NRC staff concerns related to BAW-2374, Revision 2.

NRC requests response from Duke (Oconee) with the following:

1. Confirmation that its justification for continued operation (JCO) for addressing tube integrity following a large break loss-of-coolant accident (LBLOCA) remains valid.

Duke Response:

This question is not applicable to Oconee because the original Once Through Steam Generators (OTSG) have been replaced with steam generators designed for LBLOCA loads.

Unit 1 replaced SGs in fall 2003 Unit 2 replaced SGs in spring 2004 Unit 3 replaced SGs in fall 2004

Apol

2. Confirmation that compensatory measures, such as changes to emergency operating procedures, have been incorporated into plant procedures and operator training has been performed.

## Duke Response:

This question is not applicable to Oconee because the original OTSG's have been replaced with steam generators designed for LBLOCA loads.

3. Confirmation that Title 10 of the Code of Federal Regulations, Part 50, Section 50.46(a)(3) reporting requirements have been satisfied.

### Duke Response:

This question is not applicable to Oconee because the original OTSG's have been replaced with steam generators designed for LBLOCA loads.

4. Confirmation that all LBLOCAs (including those in the candy-cane region) are considered as design-basis accidents in the assessments of SG tube integrity following each SG tube inspection.

### Duke Response:

Yes, LBLOCAs (including those in the candy-cane region) are considered as design basis accidents in the assessment of SG tube integrity following each SG tube inspection.

5. Confirmation that the design of the replacement SGs is sufficient to withstand the loads associated with a LBLOCA including the thermal loads associated with a LBLOCA in the candy-cane region of the reactor coolant system (RCS).

#### Duke Response:

Yes, the design of the Replacement OTSGs (ROTSG) is sufficient to withstand the loads associated with a LBLOCA including the thermal loads associated with a LBLOCA in the candy-cane region of the RCS.

U. S. Nuclear Regulatory Commission September 16, 2009 Page 3

> 6. Commitment to provide the structural limit associated with the most limiting LBLOCA for the replacement SGs as part of the next SG tube inspection report (required by the technical specifications) following completion of the next inspection of the tubes in the replacement SGs, unless previously submitted.

# Duke Response:

Instead of making a commitment to provide the structural limit in the next SG tube inspection report, Duke would prefer to provide that information in this response. There are two types of service induced degradation (wear) found in the Oconee ROTSG's. These include wear at the land contacts in the broached tube support plate openings and wear at drilled support plate openings in the periphery region at the 14<sup>th</sup> support plate only. The best estimate structural integrity limit for wear at the land contact area is 78% TW and for wear at the drilled hole opening is 54% TW with a circumferential extent of 0.98 inches.

Inquiries on this letter should be directed to Robert C. Meixell of the Oconee Regulatory Compliance Group at (864) 873-3279.

Sincerely,

Oconee Nuclear Station

U. S. Nuclear Regulatory Commission September 16, 2009 Page 4

bc:

Mr. Luis Reyes USNRC - Region II Sam Nunn Atlanta Federal Center, Suite 23T85, 61 Forsyth St., SW, Atlanta, GA 30303-8931

Mr. J. F. Stang, Project Manager Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Mail Stop O-8 G9A Washington, DC 20555

Mr. Andrew Sabisch NRC Senior Resident Inspector Oconee Nuclear Station

Susan E. Jenkins, Manager, Infectious and Radioactive Waste Management, Bureau of Land and Waste Management Department of Health & Environmental Control 2600 Bull Street, Columbia, SC 29201