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December 2, 2009

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station, Unit 3
Docket No: 50-287
Fourth Ten Year Inservice Inspection Interval
Request for Relief No. 08-ON-002
Request for Additional Information Response

By letter dated December 29, 2008 (ML090050027), Duke Energy Carolinas, LLC (Duke) submitted Request for Relief No. 08-ON-002 seeking relief, pursuant to 10 CFR 50.55a(g)(5)(iii), from the requirement to examine 100% of the volume specified by the ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition with 2000 Addenda (as modified by Code Case N-460).

The relief would allow Duke Energy to take credit for two (2) limited ultrasonic examinations on welds associated with various systems and components described in the request.

On July 15, 2009, Duke received a request for additional information (RAI) and submitted a response dated August 7, 2009 (ML092250467). Subsequently, via additional e-mails dated August 25, 2009, September 23, 2009, and September 29, 2009, and a teleconference on September 10, 2009, Duke received additional questions, some new and some clarifying the original questions. The following enclosure contains the reviewer's questions, and Duke's responses to each.

If there are any questions or further information is needed you may contact Randy Todd at (864) 873-3418.

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Sincerely,



Dave Baxter,
Site Vice President

Enclosure

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Request for Additional Information
Relief Request 08-ON-002 Limited Weld Examination Coverage
Duke Energy Carolinas, LLC
Oconee Nuclear Station, Unit 3
Docket No. 50-287

By letter dated December 29, 2008, Duke Energy Carolinas, LLC (the licensee) submitted relief request 08-ON-002 for Nuclear Regulatory Commission review and approval. On July 15, 2009 Duke received a request for additional information (RAI) and submitted a response dated August 7, 2009. Subsequently, via additional e-mails dated August 25, 2009, September 23, 2009, and September 29, 2009, and a teleconference on September 10, 2009, Duke received additional questions, some new and some clarifying the original questions. The following enclosure contains the reviewer's questions, and Duke's responses to each.

For the weld 3HP-365-9C:

1. Please clarify the discrepancies in regard to the shear wave examinations in the circumferential directions, between the text in your response to question No. 2 of the supplement dated August 7, 2009, and the contents of the Table on page 11 of Attachment A, including the contents of page 5 of Attachment A of the letter dated December 29, 2008. It is not clear why the Table on page 11 of Attachment A indicates scanning in only one circumferential direction for shear wave examinations, but then claims 100% volume coverage.

Response:

The table listing "Clockwise pipe side" and "Counter clockwise tee side" is a typo. The entries should read "Clockwise pipe and tee side" and "Counter clockwise pipe and tee side".

2. Please clarify the discrepancies in regard to the content of the Table on page 11 of Attachment A, for 60° <i.e. 60 degree> shear wave examinations in the axial direction from the tee side and the pipe side, specifically the contents of "Weld Length Scanned," and "Percent of Volume Covered." Inconsistencies in the contents of the Table on page 11 of Attachment A are as follow:

a) For the pipe side, it is not clear how 14.1-inches is recorded for "Weld Length Scanned" while you state in page 8 of Attachment A that only 10.1-inches plus 50% (i.e. 2.0-inches) of the obstructed weld length is scanned. Also, by the same token, how 71.6+14.2 is recorded for "Percent of Volume Covered" while the recorded value for "Weld Length Scanned" is 14.1-inches.

Response:

From the pipe side, the total weld length of 14.1" was scanned. Of this, 10.1" of the scan obtained 100% coverage. The 10.1" represents 71.6% of the total weld length of 14.1" ($10.1/14.1 \times 100 = 71.6\%$).

Scanning of the remaining 4.0" obtained 50% coverage. The 4.0" represents 28.4% of the total weld length of 14.1" ($4.0/14.1 \times 100 = 28.4\%$). The 50% coverage in this weld length resulted in 14.2% coverage ($28.4\% \times 50\% = 14.2\%$).

Therefore the total percent of coverage from the pipe side obtained was 85.8% ($71.6\% + 14.2\%$) from the pipe side.

b) For the tee side scan, it is not clear how 100% is recorded for the "Percent of Volume Covered" while the recorded value for "Weld Length Scanned" is 10.1-inches.

Response:

The 10.1" weld length scanned from the tee side obtained 100% coverage. The 100% coverage listed only applies to the scanned weld length of 10.1".

The remaining 4.0" received no scan due to the tee configuration.

Therefore the 100% coverage obtained in the 10.1" of weld length results in a total coverage of 71.6% coverage ($10.1/14.1 \times 100 = 71.6\%$) from the tee side.

For the Weld 3LP-134-103:

3. Clarification of contents of Table titled "Limitation Summary for Weld 3LP-134-103 (C05.011.004)," on page-10/11 of Attachment-A, specifically the contents of columns titled "Weld Length Scanned (in.)," "Percent of Volume Covered," and "Percent of Coverage Claimed," for the 60-degree shear and the 45-degree shear. Clarification on the computation of the "Aggregate" percentage.

Response:

The component inspected is a 10.75 OD reducer welded to a valve. The total circumference of this weld is 33.77" as shown under "Weld Length Scanned (in.)" for one 60-degree axial scan (S2) and two 45-degree circumferential scans, clockwise and counterclockwise. There was no axial scan performed from the valve side (S1). However, the 0% coverage obtained is factored into the total aggregate coverage. Therefore the aggregate coverage was calculated as follows:

$(S1) 0\% + (S2) 50\% + (CW) 50\% + (CCW) 50\% = 150\%$
 $150\%/4 = 37.5\%$ Total aggregate coverage. The table is correct.

Regarding the Dates of Exams Reported:

4. RR 08-ON-002 reported on page 4 a date of May of 2006 for a VT-2 exam. The date reported on page 5 of Attachment A for UT Pipe Weld Exam was Feb 2006. Why was there 4-months difference? Didn't Oconee perform both examinations during the 2006 outage? Had 2006-Outage taken for 4-months?

Response:

VT2 examinations (pressure tests) are conducted on a different frequency and (frequently) under different operating conditions from the NDE (UT, RT, etc.) exams. Therefore they are treated as separate activities and are scheduled/performed at different times. In accordance with Subsubarticle IWA 6230 of Section XI, an Inservice Inspection Report is submitted following each refueling outage and provides information on inspections and repair/replacement activities completed since the prior outage. In a similar manner, while RR 08-ON-002 nominally addressed inspections performed during the Unit 3 End of Cycle 22 (3EOC22) refueling outage, as noted on page 1 of 7, it actually addressed inspections performed during the time interval addressed by the 3EOC22 Inservice Inspection Report (submitted August 31, 2006, see ML062480197). In the specific cases of the exams referenced in the question, the UT was performed in February, 2006, and the VT-2 exam in May, 2006. The actual dates for 3EOC22 were April 29, 2006 through June 2, 2006.