Duke Energy®
Carolinas

JAMES R. MORRIS, VICE PRESIDENT

Duke Energy Carolinas, LLC
Catawba Nuclear Station
4800 Concord Road / CN01VP
York, SC 29745

803-701-4251
803-701-3221 fax

December 18, 2008

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Duke Energy Carolinas, LLC (Duke)
Catawba Nuclear Station, Unit 2
Docket Number 50-414
Reply to Request for Additional Information Concerning Steam Generator Tube Inspection Reports for End of Cycle 15 Refueling Outage (TAC Number MD8402)

Reference: Memorandum from Allen L. Hiser, Jr. to Melanie Wong, dated June 6, 2008 (communicated to Duke via electronic mail dated August 4, 2008)

Please find attached Catawba's reply to the referenced Request for Additional Information (RAI). The RAI was received on August 4, 2008 via electronic mail. The format of the attachment is to restate each RAI question, followed by our reply.

If you have any questions concerning this material, please call L.J. Rudy at (803) 701-3084.

Very truly yours,

James R. Morris

LJR/s

Attachment

A047
NRR

xc (with attachment):

L.A. Reyes, Regional Administrator
U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, GA 30303

A.T. Sabisch, Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Catawba Nuclear Station

J.F. Stang, Jr., Senior Project Manager (addressee only)
U.S. Nuclear Regulatory Commission
Mail Stop 8 G9A
Washington, D.C. 20555-0001

bxc (with attachment):

R.D. Hart
L.J. Rudy
P.W. Downing, Jr.
D.B. Mayes
C.B. Cauthen
W.K. Davis
K. Douthit
RGC File
Document Control File 801.01
ELL-EC05O
NCMPA-1
NCEMC
PMPA

ATTACHMENT

REPLY TO NRC REQUEST FOR ADDITIONAL INFORMATION

REQUEST FOR ADDITIONAL INFORMATION
CATAWBA, UNIT 2
2007 STEAM GENERATOR TUBE INSPECTIONS
TAC No. MD8402
DOCKET No. 50-414

By letters dated February 11, 2008 (ML080500179), and March 26 2008 (ML080930312), Duke Power Company LLC, the licensee, submitted information summarizing the results of the 2007 steam generator (SG) tube inspections at Catawba Nuclear Station, Unit 2. These inspections were performed during the fifteenth refueling outage (EOC15).

In order for the U.S. Nuclear Regulatory Commission (NRC) staff to complete its review of the portions of the above-mentioned documents pertaining to steam generator tube integrity, the NRC staff requests responses to the following questions.

1. Please discuss the degradation mechanism for the indications in the following tubes:
steam generator A, row 8, column 25 at 05H; steam generator C, row 25, column 10 at 18C; steam generator C, row 49, column 59 at 13C; steam generator D, row 45, column 52 at 15C. Are the indications attributed to wear against the tube support plates?

Duke Response:

These indications were attributed to wear at support structures. Please note there was not an indication in steam generator A, row 8, column 25 at 05H; however, there was a similar indication in steam generator B, row 8, column 25 at 05H.

2. Please confirm that the indications in the following steam generator "B" tubes are the outside diameter initiated indications at the top of the tubesheet. Please confirm that these were the 8 tubes that were plugged. Please discuss whether these tubes were stabilized:

Row 15, Column 79
Row 17, Column 28
Row 18, Column 71
Row 19, Column 29
Row 24, Column 44
Row 24, Column 72
Row 25, Column 38
Row 26, Column 64

Please provide the measured sizes (length and depth) of these indications (the depths of some of the indications were provided). Please discuss when these locations were last inspected and whether the indications were present (with hindsight) at these locations.

Duke Response:

These indications in the eight tubes in steam generator "B" are outside diameter initiated indications at the top of the tubesheet. All eight tubes were plugged and stabilized. The measured sizes were given in the data provided. In the column IND, for calls of LEN, refer to the VOLTS column and the length is reported in inches. The measured length for the other axial indication which was reported as MAI in tube 26-64 was 0.16" in length. All eight tubes were previously inspected with the array in the area of interest during the March 2006 (EOC 14) outage, but were not analyzed at the top of the tubesheet because they were not in the inspection plan. There were some precursor signals present at these locations, but no indications of degradation were present in the March 2006 (EOC 14) data.

3. It is the NRC staff's understanding that steam drum inspections were performed in two steam generators. Please clarify which two steam generators were inspected and clarify whether any degradation was observed during these inspections.

Duke Response:

Steam drum inspections were performed in the "B" and "C" steam generators. All components were found to be in good to excellent condition considering their time in service with no anomalies identified.

4. Please discuss the extent of tube support plate hole blockage. In addition, discuss the results of the rotating probe examinations performed at 08H and 09C for evidence of hole blockage.

Duke Response:

A visual inspection was performed in steam generator "A" to assess tube hole blockage. No rotating probe examinations were performed at 08H and 09C for evidence of hole blockage. However, array probe examinations were performed at 08H and

09C for evidence of hole blockage. Evaluation of this data is in progress. A complete response for this item will be provided by April 30, 2009.

5. Please discuss whether any possible loose parts were detected during the eddy current inspection and the results of any visual inspections at these locations. Please discuss whether any loose parts were left in the steam generator (other than those at the top of the pre-heater baffle plate - 18C). If any loose parts were left in service, discuss whether an analysis was performed to confirm that tube integrity would be maintained until the next steam generator tube inspection.

Duke Response:

Possible Loose Parts (PLP) indications were detected during the eddy current inspection. No degradation was associated with any of these PLP indications. No visual inspections were performed specifically as a result of these PLP indications. Loose parts were left in service at the top of the tubesheet and the pre-heater baffle plate region. For parts in these regions, a technical analysis was performed to confirm that tube integrity would be maintained until the next scheduled inspection.