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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Catawba Nuclear Station, Unit 2  
Docket No. 50-414  
Steam Generator Inservice Inspection

On October 10, 2001, a phone conference was held between NRR staff and Duke Energy staff to discuss preliminary results of the steam generator (SG) tube inspections conducted during the current Unit 2 refueling outage (2EOC11). During that discussion, we were requested to provide additional information regarding two SG tubes that were plugged in the 2B SG during the March 2000 refueling outage (2EOC10). Specifically, the NRR staff asked for additional information to explain exactly why tubes 16-29 and 34-42 were plugged and how the condition monitoring operational assessment was performed for these tubes without sizing information. The following information is provided in response to this request.

**PLUGGING OF TUBES 16-29 AND 34-42 IN SG 2B DURING 2EOC10**

During the Catawba Unit 2 refueling outage (2EOC10) in March 2000, two tubes in SG 2B were plugged for what was identified as wear at the first support plate which is the flow distribution baffle.

The two tubes in question are tubes 16-29 and 34-42 in the 2B SG. The indications were reported as follows:

**TUBE 16-29**

<u>Volts</u>	<u>Degrees</u>	<u>Channel</u>	<u>Indication</u>	<u>Location</u>	<u>Probe</u>
0.29	120	P1 mix	NQI	01H+0.51	bobbin
0.27	66	1	VOL	01H+0.47	plus point

**TUBE 34-42**

<u>Volts</u>	<u>Degrees</u>	<u>Channel</u>	<u>Indication</u>	<u>Location</u>	<u>Probe</u>
0.92	112	P1 mix	NQI	01H+0.52	bobbin
0.81	74	1	VOL	01H+0.36	plus point

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The flow distribution baffle is 0.75 inch thick. These indications are located at the upper edge of the baffle and were considered to be related to foreign objects.

The following dimensions of the indications were measured:

<u>Tube</u>	<u>Axial length(in)</u>	<u>Circ extent(in)</u>	<u>Depth (%TW)</u>
16-29	0.25	0.32	4
34-42	0.28	0.32	10

Based on the above dimensions, the structural limit for meeting tube integrity requirements was calculated to be greater than 80 % TW.

Both tubes 16-29 and 34-42 were inspected in May 1994 by bobbin and reported as NDD. There were no indications of foreign material observed at the location during the 1994 inspection.

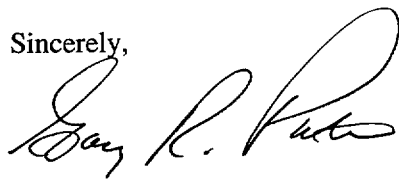
A 100 % bobbin inspection was performed during 2EOC10 and no foreign objects were observed in this region. The only creditable cause for the wear indications at this location would be a foreign object that existed some time in the past. The tubes met condition monitoring because of the indication's shallow depth, which was well below the structural integrity limit as indicated above. Operational assessment was not considered because the tubes were plugged for foreign objects that no longer were located in this area, therefore the driving force for any future propagation was removed and the growth rate would have been zero. Any foreign object damage is by nature very localized and no further indications of foreign objects were seen that would have caused any further tube damage for future operations on a generic basis.

The potential for foreign object induced wear is addressed by our standard inspection plan, which includes inspection of all of the following areas:

1. periphery tubes are inspected two tubes deep
2. tubes around plugged tubes
3. previous indications

There are no commitments contained in this correspondence. Please contact Gary D. Gilbert at (803) 831-3231 if the need arises for additional information.

Sincerely,



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