

August 17, 2004

Mr. James Scarola, Vice President  
Shearon Harris Nuclear Power Plant  
Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

SUBJECT: REVIEW OF THE 2003 SHEARON HARRIS STEAM GENERATOR TUBE  
INSPECTION RESULTS (TAC NUMBER MC3820)

Dear Mr. Scarola:

By letter dated May 15, 2003, as supplemented by letters dated August 13, 2003, December 8, 2003, April 15, 2004, May 7, 2004, and May 27, 2004, Carolina Power & Light Company submitted reports summarizing the steam generator tube inspections performed during the eleventh refueling outage at the Shearon Harris Nuclear Power Plant (HNP) in May 2003.

As discussed in the enclosed evaluation, the Nuclear Regulatory Commission staff concluded that you have provided the information required by the technical specifications for HNP and that no additional follow-up action is required at this time. If you have any questions, please contact me at (301) 415-3025.

Sincerely,

*/RA/*

Chandu P. Patel, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosure: Evaluation

cc w/enclosure:  
See next page

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SHEARON HARRIS NUCLEAR POWER PLANT  
EVALUATION OF ELEVENTH REFUELING OUTAGE IN MAY 2003  
STEAM GENERATOR TUBE INSPECTION RESULTS

DOCKET NO. 50-400

By letters dated May 15, 2003 (ML031420075), August 13, 2003 (ML032680868), December 8, 2003 (ML033530429), April 15, 2004 (ML041120371), May 7, 2004 (ML041320496), and May 27, 2004 (ML041560343), Carolina Power & Light Company, the licensee, submitted reports summarizing the steam generator tube inspections performed during the eleventh refueling outage in May 2003 at Shearon Harris Nuclear Power Plant (HNP).

The three steam generators at HNP were replaced in late 2001 during Refueling Outage 10 with Westinghouse Model Delta 75 steam generators. Each steam generator contains 6,307 thermally treated Alloy 690 tubes. Each tube has a nominal outside diameter of 0.6875-inch and a nominal wall thickness of 0.040-inch. The tubes were hydraulically expanded at both ends for the full length of the tubesheet and are supported by a number of stainless steel tube supports (trifoil tube hole design). The tubes installed in rows 1 through 17 were thermally stress relieved after bending.

The licensee provided the scope, extent, methods, and results of their 2003 steam generator tube inspections in the documents referenced above. Subsequent to the 2003 outage, the licensee shut down the plant in May 2004 as a result of primary-to-secondary leakage. As a result of the investigation into the cause of the leakage, the licensee determined that one indication was missed during their 2003 inspections. This indication is discussed in the May 27, 2004 letter. The NRC staff's response to the 2004 inspections are being addressed through other NRC processes (e.g., NRC Inspection Program, Generic Communications). The NRC staff will review the 2004 steam generator tube inspection reports when they are submitted to the NRC.

In the documents referenced above, the licensee described corrective actions (i.e., tube plugging or repair) taken in response to the 2003 inspection findings. Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by the technical specifications for HNP. In addition, the NRC staff concludes that there are no technical issues from the 2003 inspections that warrant follow-up action at this time since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Mr. James Scarola  
Carolina Power & Light Company

**Shearon Harris Nuclear Power Plant  
Unit 1**

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