## January 21, 2004

Mr. J. W. Moyer, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
3581 West Entrance Road
Hartsville, South Carolina 29550

SUBJECT: REVIEW OF 90-DAY STEAM GENERATOR TUBE INSERVICE INSPECTION

REPORT FOR A REFUELING OUTAGE IN 2002 AT H. B. ROBINSON STEAM

ELECTRIC PLANT, UNIT NO. 2 (TAC NO. MB7806)

Dear Mr. Moyer:

By letters dated November 11, 2002, as supplemented by letters dated November 14, 2002, February 11, 2003, and July 16, 2003, Carolina Power & Light Company (CP&L) submitted reports summarizing the steam generator tube inspections performed at H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP2) during refueling outage 21 in 2002.

As discussed in the enclosed evaluation, the NRC staff concluded that you provided the information required by the technical specifications for HBRSEP2 and that no additional followup 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. 50-261

Enclosure: Evaluation

cc w/encl: See next page

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NAME	CPatel	EDunnington	AHowe
DATE	1/20/04	1/16/04	1/20/04

# NUCLEAR REGULATORY COMMISSION STAFF'S REVIEW

### OF THE STEAM GENERATOR 90-DAY REPORT

## CAROLINA POWER & LIGHT COMPANY

#### H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

#### **DOCKET NO. 50-261**

By letters dated November 11, 2002 (ML023170211), November 14, 2002 (ML023220203), February 11, 2003 (ML030440106), and July 16, 2003 (ML032020119), Carolina Power & Light Company (also doing business as Progress Energy), the licensee for H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP2) submitted reports summarizing the steam generator tube inspections performed during refueling outage 21 in 2002.

HBRSEP2 has three Westinghouse Model 44F steam generators. These steam generators were placed in service in 1984 and have thermally treated Alloy 600 tubes. During RFO 21 in 2002, approximately 50 percent of the tubes in each of the three steam generators were inspected full-length with a bobbin coil. In addition to the bobbin coil inspections, a rotating probe equipped with a +Point<sup>™</sup> coil was used to inspect 20 percent of the hot-leg manufacturing buff marks, 20 percent of the dents, the U-bend region of 50 percent of the row 1 and 2 tubes, and the hot-leg expansion transition region of 50 percent of the tubes in each of the steam generators.

As a result of the steam generator tube inspections, eight tubes were plugged. These tubes were mainly plugged as a result of manufacturing anomalies or wear attributed to loose parts. In several cases where wear associated with a loose part was suspected, no loose part was present at the location.

Based on a review of the information provided by the licensee, the NRC staff concludes that the information that the licensee was required to submit by their technical specifications was provided and that no additional followup was required at this time. However, the NRC staff notes that given the number of volumetric indications attributed to wear associated with loose parts and the past experience with a restricted tube (refer to ML031120705), the licensee should continue to thoroughly investigate their inspection findings. For example, volumetric indications such as from wear due to loose parts could be the result of other mechanisms (e.g., corrosion). Given the absence of loose parts in the vicinity of some of these indications and the region in the tube bundle in which they are found, it is important to continue to ensure from a tube integrity assessment standpoint that the volumetric indications are not the result of some other form of degradation.

Principal Contributor: K. Karwoski, EMCB/DE

Date: January 21, 2004

Mr. J. W. Moyer Carolina Power & Light Company

CC:

Steven R. Carr Associate General Counsel - Legal Department Progress Energy Service Company, LLC Post Office Box 1551 Raleigh, North Carolina 27602-1551

Ms. Margaret A. Force Assistant Attorney General State of North Carolina Post Office Box 629 Raleigh, North Carolina 27602

U. S. Nuclear Regulatory Commission Resident Inspector's Office H. B. Robinson Steam Electric Plant 2112 Old Camden Road Hartsville, South Carolina 29550

Mr. T. P. Cleary
Plant General Manager
H. B. Robinson Steam Electric Plant,
Unit No. 2
Carolina Power & Light Company
3581 West Entrance Road
Hartsville, South Carolina 29550

Mr. Chris L. Burton
Director of Site Operations
H. B. Robinson Steam Electric Plant,
Unit No. 2
Carolina Power & Light Company
3581 West Entrance Road
Hartsville, South Carolina 29550

Public Service Commission State of South Carolina Post Office Drawer 11649 Columbia, South Carolina 29211

J. F. Lucas
Manager - Support Services - Nuclear
H. B. Robinson Steam Electric Plant,
Unit No. 2
Carolina Power & Light Company
3581 West Entrance Road
Hartsville, South Carolina 29550

H. B. Robinson Steam Electric Plant, Unit No. 2

Mr. C. T. Baucom Supervisor, Licensing/Regulatory Programs H. B. Robinson Steam Electric Plant, Unit No. 2 Carolina Power & Light Company 3581 West Entrance Road Hartsville, South Carolina 29550

Ms. Beverly Hall, Section Chief N.C. Department of Environment and Natural Resources Division of Radiation Protection 3825 Barrett Dr. Raleigh, North Carolina 27609-7721

Mr. Robert P. Gruber
Executive Director
Public Staff - NCUC
4326 Mail Service Center
Raleigh, North Carolina 27699-4326

Mr. Henry H. Porter, Assistant Director South Carolina Department of Health Bureau of Land & Waste Management 2600 Bull Street Columbia, South Carolina 29201

Mr. James W. Holt
Manager
Performance Evaluation and
Regulatory Affairs PEB 7
Progress Energy
Post Office Box 1551
Raleigh, North Carolina 27602-1551

Mr. John H. O'Neill, Jr. Shaw, Pittman, Potts, & Trowbridge 2300 N Street NW. Washington, DC 20037-1128