

April 2, 2003

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 THE RESPONSE TO GENERIC LETTER 96-06 FOR
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 - WATERHAMMER
AND TWO-PHASE FLOW (TAC NO. M96859)

Dear Mr. Moyer:

Generic Letter (GL) 96-06, "Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions," dated September 30, 1996, included a request for licensees to evaluate cooling water systems that serve containment air coolers to assure that they are not vulnerable to waterhammer and two-phase flow conditions. The Carolina Power & Light Company (CP&L, the licensee) provided its assessment for H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP2), in a letter dated January 28, 1997. Additional information was provided in letters dated June 30, 1998, February 19, 1999, August 27, 2002, and January 28, 2003.

As described in the August 27, 2002, and January 28, 2003, submittals, the licensee stated that it adhered to the analytical methodology that was established by the Electric Power Research Institute (EPRI) for evaluating the GL 96-06 waterhammer issue and documented in EPRI Technical Reports 1003098 and 1006456 (previously known as EPRI Report TR-113594). This methodology was accepted by the NRC in an evaluation dated April 3, 2002. CP&L has determined that, although a waterhammer may occur in the service water system following a design-basis loss-of-coolant accident (LOCA) with a concurrent loss of offsite power (LOOP), the integrity and operability of the service water system will not be compromised. As an added measure, CP&L has made changes to operation and maintenance procedures to prevent LOOP waterhammers from occurring in the future. With respect to two-phase flow, CP&L has determined that a brief period (approximately 10 seconds) of slightly degraded containment fan cooler (CFC) performance may occur following a LOCA/LOOP event, but this will not prevent the CFCs from performing their design-basis heat removal function.

Therefore, based on our review of the information that was submitted by CP&L, it is our understanding that HBRSEP2 is not vulnerable to the waterhammer and two-phase flow concerns discussed in GL 96-06. While we are satisfied with your response and consider the waterhammer and two-phase flow elements of GL 96-06 to be closed, we have not performed a detailed review of your waterhammer and two-phase flow analyses. The analyses could be the subject of a future NRC audit or inspection activity. Previously, the GL 96-06 issue concerning thermal overpressurization was accepted by our letter dated March 1, 1999. This completes our review of your response to GL 96-06 for HBRSEP2.

If you have questions regarding this matter, 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

cc: See next page

If you have questions regarding this matter, 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

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

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

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