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SUBJECT: Responds to 990309 RAI re GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related MOVs."

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Carolina Power & Light Company
Harris Nuclear Plant
P.O. Box 165
New Hill NC 27562

SERIAL: HNP-99-091

MAY 28 1999

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING
GENERIC LETTER 96-05, "PERIODIC VERIFICATION OF DESIGN-BASIS CAPABILITY
OF SAFETY-RELATED MOTOR-OPERATED VALVES"

Dear Sir or Madam:

By letter dated March 9, 1999, the NRC requested that Carolina Power & Light Company (CP&L) respond by May 28, 1999 to a request for additional information regarding Generic Letter 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves," for the Harris Nuclear Plant. Generic Letter 96-05 was issued on September 18, 1996 and the Harris Nuclear Plant response was provided by letters dated March 14, 1997 and June 12, 1998.

A written report providing the requested information is enclosed. Questions regarding this matter may be referred to Mr. J. H. Eads at (919) 362-2646.

Sincerely,

D. B. Alexander
Manager, Regulatory Affairs
Harris Plant

Enclosure

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c: Mr. J. B. Brady (NRC Senior Resident Inspector, HNP)
Mr. R. J. Laufer (NRR Project Manager, HNP)
Mr. L. A. Reyes (NRC Regional Administrator, Region II)

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION
REGARDING GENERIC LETTER 96-05, "PERIODIC VERIFICATION OF DESIGN-BASIS
CAPABILITY OF SAFETY-RELATED MOTOR-OPERATED VALVES"

Requested Information Item 1:

In a letter dated August 7, 1996, the NRC staff concluded that the licensee of the Shearon Harris Nuclear Power Plant (Harris) had satisfactorily addressed its comments to implement a motor-operated valve (MOV) program in response to Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance." Therefore, the NRC staff closed its review of the GL 89-10 program at Harris based on a close-out package submitted by the licensee on February 28, 1995, and on follow-up information provided on December 7, 1995. In the August 7, 1996 letter, the NRC staff indicated that the licensee's request to remove Service Water valves 1SW-91, 92, 97, 98, 109, 110, 201, and 225 from its GL 89-10 program scope was unjustified based on the information provided in the licensee's letter dated December 7, 1995. As a result, the licensee was directed to retain these MOVs in its GL 89-10 program, or provide additional justification for their removal from the program. Therefore, the licensee should update the program status of these Service Water valves that were noted in the NRC letter dated August 7, 1996.

Response 1:

Service Water MOVs 1SW-91, 92, 97, 98, 109, 110, 225, and 227 are in the Harris GL 89-10 program. Please note that there is an incorrect valve tag referenced in the question above. Valve tag 1SW-201 should be 1SW-227.

Requested Information Item 2:

The JOG program focuses on the potential age-related increase in the thrust or torque required to operate valves under their design-basis conditions. In the NRC safety evaluation dated October 30, 1997, on the JOG program, the NRC staff specified that licensees are responsible for addressing the thrust or torque delivered by the MOV motor actuator and its potential degradation. The licensee should describe the plan at Harris for ensuring adequate ac and dc MOV motor actuator output capability, including consideration of recent guidance in Limatorque Technical Update 98-01 and its Supplement 1.

Response 2:

To address the potential degradation of thrust and torque delivered by MOV actuators, the Harris MOV program requires the following: 1) the performance of periodic static diagnostic testing of MOVs, to confirm MOV capability and proper control switch settings and to detect potential

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degradation in actuator output; 2) the performance of preventive maintenance activities such as periodic stem lubrication, periodic actuator grease case inspection, and actuator refurbishment as required to provide assurance of proper actuator performance; and 3) the application of allowances to account for actuator degradation mechanisms such as stem lubrication degradation and spring pack relaxation. The Harris MOV program monitors stem friction coefficient under static and dynamic conditions and rate-of-loading and makes necessary program adjustments to ensure the MOVs remain capable of performing their design-basis function.

The impact of Limatorque Technical Update 98-01 and its Supplement 1, on the capability of ac-powered MOVs within the scope of the Harris MOV program has been evaluated. No operability issues were identified. Emergent industry issues concerning dc powered MOVs are reviewed by Harris personnel. CP&L is currently participating in an industry effort (through the BWROG Valve Technical Resolution Group) to develop a contemporary methodology for evaluating dc MOV capability.

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