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the southern electric system

W. G. Hairston, III
Senior Vice President
Nuclear Operations

March 15, 1990

ELV-01375
0260

Docket Nos. 50-424
50-425

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
RESPONSE TO GENERIC LETTER 89-19

In "Request For Action Related to Resolution of Unresolved Safety Issue A-47, Safety Implications of Control Systems in LWR Nuclear Power Plants - Generic Letter 89-19", the staff concluded that all PWR plants should provide automatic steam generator overfill protection and that plant procedures and technical specifications for all plants should include provisions to periodically verify the operability of the overfill protection in order to assure that automatic overfill protection is available to mitigate main feedwater overfeed events during reactor power operation. Enclosure 2 of the Generic Letter outlined designs that satisfied the objectives for overfill protection and provided guidance for an acceptable design for various classes of plants. Item 2 of Enclosure 2 discussed Westinghouse designed PWR plants and stated that plants that have an overfill protection system initiated on a steam generator high-high water level signal (based on a 2-out-of-4 initiating logic), which is safety grade, are acceptable provided that:

(1) the overfill protection system is sufficiently separate from the control portion of the MFW control system so that it is not powered from the same power source, not located in the same cabinet, and not routed so that a fire is likely to affect both systems, and

(2) the plant procedures and technical specifications include requirements to periodically verify operability of this system.

The design of the feedwater isolation system has been reviewed for the VEGP-Units 1 and 2. A steam generator high-high water level signal generates a turbine trip signal, a trip of the feedwater pumps, and the closure of all feedwater isolation valves.

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The feedwater isolation valves consist of the main feedwater isolation valves (MFIV's), bypass feedwater isolation valves (BFIV's), main feedwater regulating valves (MFRV's) and bypass feedwater regulating valves (BFRV's). The above valves receive Train A and Train B feedwater isolation signals. Each MFIV is powered by two separate pneumatic/hydraulic power trains with electric solenoids energized from separate Class 1E sources. The BFIV's have air-operated piston actuators provided to close the valves with electric solenoids energized from separate Class 1E sources. The MFRV's and BFRV's are air-operated with electric solenoids energized from separate Class 1E sources. All valves are designed to fail closed. This design provides excellent assurance that, upon receipt of a feedwater isolation signal, all flow to the steam generators will be stopped as a result of the closure of these valves. Additionally, the engineered safety features actuation system is train separated and routed so that a fire is not likely to affect both systems.

The plant procedures and technical specifications have been reviewed to ensure that appropriate requirements exist to periodically verify operability of this system. This review has concluded that the turbine trip and feedwater isolation signals have appropriate channel checks, channel calibrations and analog channel operational testing. Additionally, the actuation logic test, master relay test, and slave relay test are performed to ensure equipment actuation. Response time testing and valve stroke testing is also performed to ensure that components function within the assumed time intervals.

Based upon the above review, Georgia Power Company has concluded that the VEGP steam generator overfill protection system satisfies the recommendations of Enclosure 2 to Generic Letter 89-19 for a Westinghouse Group I plant. Georgia Power Company plans no other action in response to Generic Letter 89-19.

Mr. W. G. Hairston, III states that he is a Senior Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power and that, to the best of his knowledge and belief, the facts set forth in this letter are true.

GEORGIA POWER COMPANY

By: W. G. Hairston

W. G. Hairston, III

Sworn to and subscribed before me this 15 day of March, 1990.

Ginger Carter

Notary Public

MY COMMISSION EXPIRES JANUARY 12, 1993

xc (see next page)

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. R. F. Aiello, Senior Resident Inspector, Vogtle