50-395

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 12, 1995

Mr. Gary J. Taylor
Vice President, Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88
Jenkinsville, South Carolina 29065

SUBJECT: DISCREPANCY WITH BRANCH TECHNICAL POSITION (BTP) EICSB 18 - VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1 (TAC NO. M89539)

Dear Mr. Taylor:

In a May 19, 1994 letter, Mr. John L. Skolds requested NRC concurrence with your staff's conclusion that no action was necessary to meet your licensing basis with respect to BTP EICSB 18, "Application of the Single-Failure Criterion to Manually Controlled Electrically Operated Valves." In addition to your letter, we received a May 20, 1994 Region II request to evaluate this issue at your plant. Although we answered the Region II request, we did not formally respond to your letter. This letter corrects that oversight.

As reported in Inspection Report No. 50-395/94-10, your staff identified two charging/high-head safety injection (HHSI) pump cross-connect motor-operated valves, XVG-8133A and XVG-8133B, that are vulnerable to a single-failure contrary to the recommendation in BTP EICSB 18. The concern was that when pump "C" is aligned to train "B," a "hot short" in the control circuitry of either of the valves could cause a valve to mechanically change position while all HHSI flow is being delivered via the train "B" flow path, thus defeating the automatic function for both trains of HHSI. In the May 19, 1994 letter, your staff attempted to show that no corrective action was required because the probability of the postulated single failure was acceptably low.

The NRC staff has evaluated this issue and concluded the postulated scenario could disable the HHSI, thereby compromising plant emergency response to small break loss-of-coolant accident and cooldown transient events. The NRC's regulations (e.g., General Design Criterion 35, "Emergency core cooling," 10 CFR Part 50 Appendix K) require that emergency core cooling system designs allow the safety function to be accomplished assuming a single failure. In this case, the regulations do not allow for probability arguments to justify accepting a postulated single failure. Therefore, the BTP EICSB 18 position regarding single failure is based on a regulatory requirement and is not just a staff recommendation.

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Mr. Gary J. Taylor
South Carolina Electric & Gas Company

VIRGIL C. SUMMER NUCLEAR STATION

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Therefore, we cannot concur with the position stated in Mr. Skolds's letter. The valves should have their power locked out in accordance with the single failure criterion of BTP EICSB 18. Alternatively, the administrative controls you've implemented to ensure the supply breakers for both valves are locked open with valves in the open position if the HHSI pump "C" is aligned to the train "B" HHSI is also acceptable, pro ided a redundant valve position indication for these valves is provided in the control room to satisfy the recommendations of BTP EICSB 18.

Sincerely,

Original signed by

Stephen Dembek, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-395

cc: See next page

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