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February 15, 1994  
Refer to: RC-94-0036

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION  
DOCKET NO. 50/395  
OPERATING LICENSE NO. NPF-12  
RESPONSE TO NOTICE OF VIOLATION  
NRC INSPECTION REPORT 93-27

Attached is the South Carolina Electric & Gas Company (SCE&G) response to the Notice of Violation delineated in NRC Inspection Report No. 50-395/93-27. SCE&G is in agreement with the violation, and the enclosed response addresses the reason and corrective actions being taken to prevent recurrence.

Should you have any questions, please call at your convenience.

Very truly yours,

John L. Skolds

JWP/JLS/nkk  
Attachment

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R. R. Mahan (w/o Attachment)  
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NUCLEAR EXCELLENCE - A SUMMER TRADITION!

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RESPONSE TO NOTICE OF VIOLATION  
NUMBER 50-395/93-27-01

I. RESTATEMENT OF NRC VIOLATION

10 CFR 50 Appendix B, Criterion III, requires design control measures which assure that the design basis is properly translated into drawings, specifications, instructions, and procedures.

Contrary to the above, on December 7, 1993, the licensee's design control measures did not assure proper translation of the design basis into the procedures for thrust settings and differential pressure testing Charging System Motor Operated Valves (MOVs) XVG08107-CS and XVG08108-CS. Calculation 0980-77-DP-002, used in this process, was inaccurate. The calculation incorrectly used the flow and discharge pressure from only one charging pump to determine maximum closing differential pressure for MOVs XVG08107-CS and XVG08108-CS. During accident conditions, two charging pumps could be in operation resulting in a differential pressure for closure across the MOVs greater than was previously calculated.

II. STATEMENT OF POSITION

South Carolina Electric & Gas Company (SCE&G) is in agreement with the violation as stated above.

III. REASON FOR THE VIOLATION

The calculation of maximum expected differential pressure for MOV operation was based on the most limiting design basis accident for the charging/safety injection system, which results in only one charging pump running. A more conservative maximum differential pressure for MOV operation should have been calculated based on the more limiting design basis accident for these MOVs. This more limiting condition results in the requirement for these valves to close against the discharge pressure of two charging pumps and a larger differential pressure. The engineer made an error when he assumed that the most limiting design basis accident for the system bounded the assumptions for MOV operation.

IV. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

An evaluation was performed to determine the maximum expected line and differential pressures during the most limiting design basis accident scenario for which these MOVs must operate. These values were utilized in the determination of the new minimum required closing thrust for XVG08107 and XVG08108. A degraded voltage capability evaluation was also performed for these MOVs which indicated that the new closing thrust is within the degraded voltage capabilities of these MOVs, with approximately 17% margin based on the existing switch settings.

V. CORRECTIVE ACTIONS TAKEN TO AVOID FURTHER VIOLATIONS

SCE&G has demonstrated by calculations and previous test results that the margin available with the existing switch settings on XVG08107 and XVG08108 is sufficient to assure the operation of these MOVs for their design basis functions. Further detailed calculations and revision of design basis calculations for these MOVs will be completed to document these changes in the Design Basis Document.

In addition, a detailed review of all maximum expected DP versus flow calculations will be performed.

VI. DATE FULL COMPLIANCE WILL BE ACHIEVED

SCE&G will be in full compliance with respect to this corrective action upon the revision of the DBD calculations, to be completed by August 31, 1994.