

ENCLOSURE 1

NOTICE OF VIOLATION

South Carolina Electric & Gas Company
Summer

Docket No. 50-395
License No.: NPF-12

During an NRC inspection conducted on March 2, - April 3, 1992, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1992), the violations are listed below:

- A. 10 CFR 50 Appendix B, Criterion III, as implemented by Final Safety Analysis Report (FSAR) Section 17.2.3, requires the licensee to assure that design bases, such as seismic and overload protection criteria, are correctly translated into drawings, procedures and instructions. Additionally, 10 CFR 50 Appendix B, Criterion V, as implemented by FSAR Section 17.2.5, requires that activities affecting quality, such as installation of tubing to meet the seismic criteria and selection of thermal overload protection for motors, be performed in accordance with drawings, procedures or instructions that specify acceptance requirements which assure the activities are correctly accomplished. Together, the above requirements specify a process whereby design basis criteria are correctly translated into installed equipment.

Contrary to the above, design basis criteria were not translated into correct installations of seismic supports for tubing and thermal overloads for motors as follows:

1. Unsupported span lengths for safety related tubing mounted on the Emergency Diesel Generators' (EDGs) skids exceeded the maximums specified by the applicable design calculation (Seismic Calculations for Skid Piping, Seismic Qualification File SQF-S-PS3-CO5-1). Examples included a measured 84 inch span between supports versus a specified maximum of 26.9 inches for air start tubing and a measured 70 inch span versus a specified 37.7 inch maximum for a lube oil line.
2. Criteria developed and used in selection of thermal overload protection for safety related motors were based on rated loads. In applying these criteria the licensee failed to recognize that consideration of loads in excess of nameplate ratings would be necessary for motors that might operate in the "service factor" region during accident conditions. As a result, undersize overload protection had been installed for one safety related service water pump house ventilation fan motor and marginal protection had been installed for another. The criteria used were

documented in calculation DC-820-004, Rev. 0, "Circuit Breaker Sizing Criteria". The motors involved were air-over rated motors with 1.15 service factors.

This is a Severity Level IV violation (Supplement 1).

- B. 10 CFR 50 Appendix B, Criterion VI, as implemented by FSAR Section 17.2.6, requires the licensee to assure the adequacy of documents that are issued for use in activities that effect quality.

Contrary to this requirement, drawings, a calculation, and a database issued for use in determining the acceptability of the design and installation of safety related equipment were deficient as follows:

1. Motor Control Center Unit Listing 201 series drawings, which provided electrical data on the loads powered from the Motor Control Centers, had motor load data omitted in some instances and numerous incorrect entries of overload sizes, horsepower, etc. As an example of incorrect data, drawing B-201-359-05R7 showed Safety Injection Valve XVG 8889 to have a B 36.00 overload for its motor, whereas the team observed the installed overload was B 4.00. As an example of omissions, drawing B-201-359-02R5 for Component Cooling Valve XVB 9503A, failed to give the motor full load amps or locked rotor amps.
2. The database used to determine overload heater sizes for use in Motor Operated Valve voltage drop calculation DC-820-003, Rev. 0 (Rev. Special Attachment 11 dated 03/27/92) contained incorrect sizes for some overloads. For example, the drawing overload error referred to above was also an error in the database.
3. As originally issued for an assessment of the adequacy of voltage provided to Motor Control Centers, voltage drop calculation DC-820-003, Rev. 0, erroneously omitted determination of voltage drop caused by overload resistances, which can be a significant factor in assuring adequate voltage to motors under degraded voltage conditions.

This is a Severity Level IV violation (Supplement 1).

- C. 10 CFR 50 Appendix B, Criterion V, as implemented by the FSAR Section 17.2.5, requires the licensee to ensure that instructions, procedures or drawings include appropriate acceptance criteria for determining that important activities are satisfactorily accomplished.

Contrary to the above, the licensee had not specified criteria to ensure that its standard Pre-Approved Disposition (PAD) 12 would be properly applied. PAD 12 was a pre-approved engineering disposition intended for failures due to normal wear or aging of items such as bearings, gears, valve packing, molded case circuit breakers, relays, fuses, etc. However, it did not include adequate criteria for ensuring that a failure was due to "normal wear and aging", such that use of PAD 12 would be applicable. PAD 12 had been used to replace several molded case circuit breakers (e.g., Class 1E breakers XMC1DB2X 03EH and XMC1DA2X 05EH) that failed in tests without documenting even simple disassembly and visual inspection for the condition that resulted in the failure. These examples demonstrate that the instructions for application of PAD 12 were inadequate. Without any inspection and documentation for the condition that caused the failure, the information necessary to identify adverse trends and significant conditions adverse to quality will not be available.

This is a Severity Level IV violation (Supplement 1).

Pursuant to the provisions of 10 CFR 2.201, South Carolina Electric & Gas Company is hereby required to submit a written statement or explanation to the Regional Administrator, Region II, with a copy to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or demand for information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Dated at Atlanta, Georgia
this 19th day of May 1992