SOUTH CAROLINA ELECTRIC & GAS COMPANY
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M. C. JOHNSON
VICE PRESIDENT AND GROUP EXECUTIVE
SPECIAL SERVICES AND PURCHASING

July 18, 1979

United States Nuclear Regulatory Commission
ATTN: Mr. James P. O'Reilly
Director
Marietta Building, 31st Floor
101 Marietta Street, NW
Atlanta, Georgia 30303

Subject: V. C. Summer Nuclear Station
Unit #1
Response to NRC Audit Report
50-395/79-17 dated 6/26/79

Gentlemen:

In response to the above captioned report, we have reviewed the information found there-in and find it contains no proprietary information. In addition, we have evaluated the circumstances relating to the item identified as 79-17-01 in the captioned report, which dealt with a notice of deviation in relation to our fire pump installation. Examination of the background of this determination provides the following information:

1. Cause

The fire pumps were designed and installed in accordance with NFPA-20 with the two exceptions noted in the Notice of Deviation. The pressure sensing lines were fabricated by Site Construction rather than the vendor and, therefore, no drawings detailing these lines had been sent to GAI for review and approval.

The electric motor driven fire pump is powered from a 480 volt load center at the circulating water intake. The load center is powered by a 1000/1333 KVA transformer. There are 8 circuit breakers on the load center plus a main breaker. The circuit breaker for the fire pump does not feed any other loads. The fire pump is controlled by a UL approved controller that also contains a circuit breaker. It is our intention to coordinate

the breakers involved so that the breaker on the controller would be the first to trip in case of a fault in the motor. The fire pump motor is rated 345 amps full load and 2243 amps locked rotor. The fire pump breaker in the 480V load center will be set at its maximum setting, which is 660 amps long time delay trip, 3200 amps short time delay trip, and 4800 amps instantaneous trip. The breaker in the controller will be set as close to this as possible, but slightly lower in order to coordinate. The load center main breaker and other breakers in the system supply are set successively higher to provide overall system coordination. We consider that setting the long time delay trip at locked rotor current (2243 amps), as required by NFPA-20, would be impractical as this would exceed the transformer rating considerably. Both the short time delay and the instantaneous setting will considerably exceed the locked rotor current of the motor. We consider that these settings will ensure pump starting, if at all possible, and still protect the switchgear. It is noted that if the breaker were set at 2243 amps long time delay, the 480 volt load center and transformer would probably be destroyed, possibly creating another fire.

2. Immediate Corrective Steps Taken and Results

The pressure sensing lines will be replaced by lines that meet the requirements of NFPA-20. The FSAR and the Fire Protection Evaluation/Fire Hazard Analysis will be amended in accordance with this position.

3. Corrective Steps Taken to Avoid Future Noncompliance

In the future, Site Construction will be required to submit design drawings for fire protection equipment and appurtenances which is to be installed by Site Construction and is not included within any vendor's scope, to the appropriate engineering organization for review and approval consistent with relevant FSAR commitments. In addition, it will be confirmed that the power supply for any additional motor driven fire pump that might be added in the future, complies with the position set forth herein.

4. Full Compliance Date

The actions indicated above will be completed by October 15, 1979.

We trust that you will find our actions to resolve this item appropriate and satisfactory. Please feel free to contact us if we can provide additional information in relation to this item or the subject report.

Very truly yours,

DAN/MCJ/jls

cc: C. J. Fritz
G. C. Meetze