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May 20, 1988

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

ATTENTION: Mr. John J. Hayes, Jr.

Subject: Virgil C. Summer Nuclear Station
Docket No. 50/395
Operating License No. NPF-12
Generic Letter 82-33
Regulatory Guide 1.97

Gentlemen:

Based on a phone conversation with Mr. John J. Hayes, NRR Project Manager, Project Directorate II-1, South Carolina Electric & Gas Company (SCE&G) submits the following amendment to its February 16, 1988 Regulatory Guide 1.97 submittal. This amendment addresses the justification for the minimum instrument temperature range of 50°F for monitoring the Reactor Building atmosphere versus the Regulatory Guide 1.97 recommended 40°F.

Regulatory Guide 1.97 recommends instrumentation with a range of 40°F to 400°F to monitor the containment atmosphere temperature during post accident conditions. The SCE&G instrumentation range for monitoring containment atmospheric temperature is 50°F to 350°F. Based upon a minimum monthly average outside temperature of 35.3°F (Ref. FSAR Section 3.8), the effects of a 20°F lowest weekly average outside temperature, the influence of adjoining buildings which have an inside temperature ranging from 65°F to 104°F, and no inside containment heat load, the FSAR concludes that the minimum Reactor Building temperature will be 50°F. The peak calculated Reactor Building temperature of the Virgil C. Summer Nuclear Station is the result of the postulated 0.645 ft^2 double ended rupture of a main steam line at 102% power assuming emergency feedwater fails to isolate and the diesel generator fails to start. The peak temperature in this case is calculated to be 321.5°F, 83 seconds after the break. (See section 6.2.1.3.1.2 of the Virgil C. Summer Nuclear Station Final Safety Analysis Report (VCSNS FSAR).) Computer program CONTEMPT LT/26 was used to analyze this FSAR steam line break and obtain the containment temperature values. This computer code is discussed in detail in section 6.2.1.3.3.1 of the FSAR. Based on this information the installed instrumentation would remain on scale during and after accident conditions and is considered to meet the intent of Regulatory Guide 1.97. Therefore, SCE&G considers the present instrumentation acceptable.

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Regulatory Guide 1.97 recommends Category 2 instrumentation be provided to monitor a release from the steam generator safety relief valves or atmospheric dump valves. The steamline monitors utilized at the Virgil C. Summer Nuclear Station conform to the criteria for Type E, Category 2 variables with the exception of environmental qualification. This exception is justifiable since the monitors are located in areas of mild environment during accident conditions for which the monitors are required to supply indications. These monitors are located in Reactor Building Penetration Access Areas and are not required to provide information during main steamline break conditions at their respective locations. During design basis steam generator tube rupture events, during which the monitors are required, they will be exposed to the following maximum conditions:

Temperature	104°F
Pressure	Atmospheric
Relative Humidity	90%
Radiation	$< 1 \times 10^3$ Rad TID 6 months
Chemicals	None

Therefore, SCE&G considers the qualification of the steamline radiation monitors to be acceptable and meets the intent of the requirements of Regulatory Guide 1.97.

As discussed in the NRC November 13, 1987 letter, the issue of the environmental qualification of Category 2 instrumentation, and thus the acceptability of the current SCE&G accumulator tank level and pressure instrumentation, is a generic issue still under review by the NRC staff. Any additional information required by the NRC from SCE&G at the conclusion of the generic review will be provided upon request. Until that time, the acceptability of the accumulator tank level and pressure instrumentation will remain an open issue.

If you should require any additional information, please advise.

Very truly yours,

O S Bradham for
D. A. Nauman

AMM/DAN:lcd

pc: See Page 3

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