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Docket Nos. 50-280
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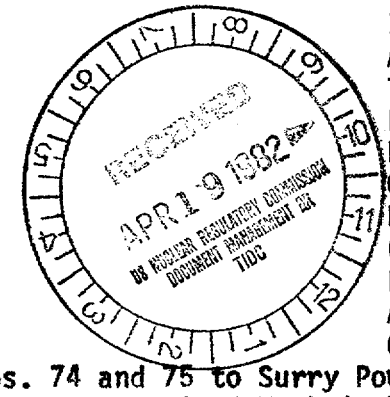

Mr. R. H. Leasburg
Vice President - Nuclear Operations
Virginia Electric and Gas Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Leasburg:

On February 2, 1982, we issued Amendment Nos. 74 and 75 to Surry Power Station, Unit Nos. 1 and 2, respectively. These amendments revised Technical Specification 3.12 but contained an error. The word "detectors" should have been "thimbles" on pages 3.12-15 and 3.12-16. The word thimbles is consistent with the Safety Evaluation Report issued at that time.

Enclosed are corrected pages which should be substituted for those issued on February 2, 1982.

Sincerely,

Original signed by:
S. A. Varga

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Enclosures:
Corrected Technical Specification
Pages 3.12-15 and 3.12-16

cc w/enclosures:
See next page

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OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL				
SURNAME	CParrish	DNeighbors	SVarga				
DATE	04/9/82	04/12/82:ds	04/12/82				

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It should be noted that the enthalpy rise factors are based on intergrals and are used as such in the DNB and LOCA calculations. Local heat fluxes are obtained by using hot channel and adjacent channel explicit power shapes which take into account variations in radial (x-y) power shapes throughout the core. Thus, the radial power shape at the point of maximum heat flux is not necessarily directly related to the enthalpy rise factors. The results of the loss of coolant accident analyses are conservative with respect to the ECCS acceptance criteria as specified in 10 CFR 50.46 using an upper bound envelope of 2.18 times the hot channel factor normalized operating envelope given by TS Figure 3.12-8.

When an F_Q measurement is taken, measurement error, manufacturing tolerances, and the effects of rod bow must be allowed for. Five percent is the appropriate allowance for measurement error for a full core map (≧38 thimbles, including a minimum of 2 thimbles per core quandrant, monitored) taken with the movable incore detector flux mapping system, three percent is the appropriate allowance for manufacturing tolerances, and five percent is the appropriate allowance for rod bow. These uncertainties are statistically combined and result in a net increase of 1.08 that is applied to the measured value of F_Q.

In the specified limit of $F^N_{\Delta H}$ there is an eight percent allowance for uncertainties, which means that normal operation of the core is expected to result in $F^N_{\Delta H} \leq 1.55\ (1+0.2\ (1-P))/1.08$. The logic behind the larger uncertainty in this cas is that (a) normal perturbations in the radial power shape (e.g., rod misalignment) affect $F^N_{\Delta H}$, in most cases without necessarily affecting F_Q, (b) the operator has a direct influence on F_Q through movement of rods and can limit it to the desired value; he has no direct control over $F^N_{\Delta H}$, and (c) an error in the predictions for radial power shape, which may be detected during startup physics tests and which may influence F_Q, can

be compensated for by tighter axial control. Four percent is the appropriate allowance for measurement uncertainty for $F^N_{\Delta H}$ obtained from a full core map ($\geq$38 thimbles, including a minimum of 2 thimbles per core quandrant, monitored) taken with the movable incore detector flux mapping system.

Measurement of the hot channel factors are required as part of startup physics tests, during each effective full power month of operation, and whenever abnormal power distribution conditions require a reduction of core power to a level based on measured hot channel factors. The incore map taken following core loading provides confirmation of the basic nuclear design bases including proper fuel loading patterns. The periodic incore mapping provides additional assurance that the nuclear design bases remain inviolate and identify operational anomalies which would, otherwise, affect these bases.

For normal operation, it has been determined that, provided certain conditions are observed, the enthalpy rise hot channel factor $F^N_{\Delta H}$ limit will be met. These conditions are as follows:

1. Control rods in a single bank move together with no individual rod insertion differing by more than 15 inches from the bank demand position. An indicated misalignment limit of 13 steps precludes a rod misalignment no greater than 15 inches with consideration of maximum instrumentation error.
2. Control rod banks are sequenced with overlapping banks as shown in TS Figures 3.12-1A, 3.12-1B, and 3.12-2.
3. The full length control bank insertion limits are not violated.
4. Axial power distribution control procedures, which are given in terms of flux difference control and control bank insertion limits are observed. Flux difference refers to the difference