VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 14, 1989

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. 89-716
PES/NAS:vlh R1
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
CORRECTION OF REPORTED LOCKED ROTOR ANALYSIS RESULTS

In a May 26, 1987 letter (Serial No. 87-188), the Virginia Electric and Power Company requested Facility Operating License amendments in the form of revisions to the Technical Specifications for Surry Power Station Units 1 and 2. These revisions were required to support operation with a new fuel assembly design, which had been jointly developed by Virginia Electric and Power Company and Westinghouse. The new fuel assembly design is referred to as Surry Improved Fuel (SIF).

Because the new fuel design impacted certain parameters, which are significant to safety analysis (e.g., control rod drop times), some of the UFSAR Chapter 14 accident analyses were revised. Among the reanalyzed events was the locked reactor coolant pump rotor. The results of the locked rotor reanalysis showed that applicable safety criteria were met with considerable margin. These results, documented in letter Serial No. 87-188, were submitted to the NRC in support of the SIF amendment request, which was granted by a January 6, 1988 NRC letter.

We are currently performing an extensive review and validation of the UFSAR. As part of this effort, the locked rotor analysis UFSAR Section 14.2.9 was being updated to reflect the reanalysis to support operation with SIF. During this process, it was discovered that the calculation of peak clad temperature at the highest powered location in the core had not been initialized at the proper pellet average temperature. The analysis was corrected, resulting in a peak clad temperature higher than previously calculated, but still well within the acceptance limit for this event. The respective peak clad temperatures for the locked rotor event are:

	Peak Clad Temperature, °F
Revised SIF analysis	1654
Corrected SIF analysis	1795
Acceptance limit	2700

A001
1/0

Based on these results, we have determined that the conclusions presented in our May 26, 1987 letter (Serial No. 87-188) are not impacted and the locked rotor analysis error does not represent an unreviewed safety question. In view of the fact that the large break LOCA continues to be bounding for establishing the local allowable peaking factor, we believe that the conclusions of the NRC Safety Evaluation Report (SER) for SIF have not been affected by the correction of the locked rotor analysis.

Results of the revised analyses will be reflected in our next UFSAR update.

If you have questions or require additional information regarding this transmittal, please contact us.

Very truly yours,

W. L. Stewart
Senior Vice President - Power

cc: U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Suite 2900
Atlanta, Georgia 30323

Mr. W. E. Holland
NRC Senior Resident Inspector
Surry Power Station