

VIRGINIA ELECTRIC AND POWER COMPANY

RICHMOND, VIRGINIA 23261

October 1, 1990

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D. C. 20555

Serial No. 90-562  
NO/RFB  
Docket Nos. 50-280  
50-281  
50-338  
50-339  
License Nos. DPR-32  
DPR-37  
NPF-4  
NPF-7

Gentlemen:

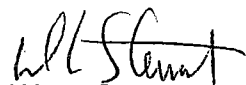
**VIRGINIA ELECTRIC AND POWER COMPANY**  
**SURRY POWER STATION UNITS 1 AND 2**  
**NORTH ANNA POWER STATION UNITS 1 AND 2**  
**TOPICAL REPORT - PDQ TWO ZONE MODEL**

Enclosed for your review and approval is the Virginia Power Topical Report VEP-NAF-1, "PDQ Two Zone Model," July, 1990.

The attached report describes a coarse mesh 3-D core analysis model to be used for in-house nuclear reload design of Surry Unit 1 Cycle 12 which is scheduled to begin in mid 1992. Three dimensional core analysis of Surry Unit 1 Cycle 12 is required because of axially zoned flux suppression inserts which will be loaded. We request your approval by the end of the first quarter of 1991 to support core design analysis of this cycle.

The report has been reviewed by the Station Nuclear and Operating Committee at each station. If you have any questions on the material in this topical report, please contact us.

Very truly yours,



W. L. Stewart  
Senior Vice President - Nuclear

Enclosure

9010090075 901001  
PDR ADOCK 05000280  
P PDC

*Handwritten:* A001 1/23

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

Mr. M. S. Lesser  
NRC Senior Resident Inspector  
North Anna Power Station