

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 25, 1992

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

Serial No. 92-743
NL&P/CGL R2
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
REQUEST FOR REMOVAL OF 45,000 MWD/MTU
BATCH AVERAGE BURNUP RESTRICTION

By a letter dated April 9, 1984, the NRC approved an increase in the batch average burnup restriction from 37,000 to 45,000 MWD/MTU for Surry and North Anna Power Stations. The burnup restriction was associated with previous Technical Specification amendments, which increased the fuel enrichment for both Surry and North Anna. The safety evaluation accompanying the April 9, 1984 letter stated that the NRC had not completed its review of Westinghouse topical report WCAP-10125, entitled "Extended Burnup Evaluation of Westinghouse Fuel." Since that time, the NRC review of WCAP-10125 has been completed and the NRC safety evaluation report (SER) was issued on October 11, 1985. The SER accepted WCAP-10125 for reference by licensees using Westinghouse Zircaloy-clad fuel designs, which both Surry and North Anna have, up to the extended burnup level requested in the topical report. The purpose of this letter is to request removal of the batch average burnup restriction of 45,000 MWD/MTU for both Surry and North Anna, as presently specified by the April 9, 1984 NRC letter. Fuel burnups at Surry and North Anna would then be limited to levels consistent with the NRC SER on WCAP-10125.

Since the issuance of the NRC SER, we have reviewed WCAP-10125 in conjunction with our own experience on individual assemblies with assembly burnup levels greater than 45,000 MWD/MTU and have concluded that no fuel performance restriction would preclude Westinghouse designed fuel from operation in the extended burnup range discussed in WCAP-10125. (The burnup range discussed in WCAP-10125 is a lead rod value, which is considered proprietary by Westinghouse.) Also

020017

9212030197 921125
PDR ADOCK 05000280
P PDR

AD001 1/0

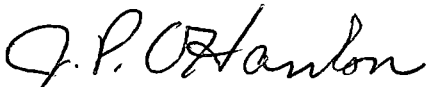
subsequent to the issuance of the NRC SER, NUREG/CR-5009, entitled "Assessment of the Use of Extended Burnup Fuel in Light Water Power Reactors," was published in February 1988 to document a study conducted by Pacific Northwest Laboratory for the NRC. This report concluded that there are no significant adverse environmental effects associated with increases in the burnup level to a maximum rod average burnup of 60,000 MWD/MTU.

With the current fuel management, it is anticipated that fuel in Surry Unit 2 Cycle 12 will achieve a batch average burnup of just under 45,000 MWD/MTU. To support the planned operation of Surry Unit 2 Cycle 13, it will be necessary to operate some of this fuel for an additional cycle (which would result in a batch average burnup over 45,000 MWD/MTU) or to procure additional fresh fuel for Cycle 13. In addition, batch average burnups of fuel in Surry Unit 1 have approached this limit in recent cycles. It is also anticipated that a similar situation will develop at North Anna. Therefore, we request removal of the batch average burnup restriction of 45,000 MWD/MTU for both Surry and North Anna, as presently specified by the April 9, 1984 NRC letter. Fuel burnups at Surry and North Anna would then be limited to levels consistent with the NRC SER on WCAP-10125.

NRC review and approval of our request to remove the batch average burnup restriction are required by the fall of 1993 to support the fuel procurement schedule for Surry Unit 2 Cycle 13. This cycle is currently planned to be loaded in the fall of 1994.

Should you have any questions or require additional information, please contact us.

Very truly yours,



W. L. Stewart
Senior Vice President - Nuclear

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

Mr. M. W. Branch
NRC Senior Resident Inspector
Surry Power Station

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