VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

February 9, 1994

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

Serial No. 94-037
NL&P/MAE: R1
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
RESPONSE TO NRC INFORMATION NOTICE 89-90
AND NUREG 0737, ITEM II.D.1

In our letter dated October 31, 1991 (Serial No. 91-604), we committed to install continuous drain lines on the pressurizer safety valve (PSV) loop seal piping, drain line supports and revised PSV discharge piping supports on both North Anna units. The modifications were intended to address NRC Information Notice 89-90 concerning the PSV lift setpoint shift issue for both units, and NUREG 0737, Item II.D.1, which involved water hammer effects and extended blowdown times, for Unit 1. Unit 2 is in full compliance with the requirements of NUREG 0737, Item II.D.1.

In our letter dated November 12, 1992 (Serial No. 92-557), we informed the NRC of our intent to defer the above commitments until the NRC had approved the Report of Pressurizer Safety Valve Setpoint Shift (WCAP 12910) submitted by the Westinghouse Owners Group (WOG).

The NRC approved WCAP 12910 by letter dated February 19, 1993. The letter stated that the WCAP-12910 topical report provides an acceptable assessment of PSV set pressure shift and performance expected for loop seal configurations and is acceptable for referencing by individual licensees in applying the expected PSV response to plant safety analyses. An accepted version of this report was issued by WOG (WCAP-12910, Rev. 1-A) in May 1993. Based on the NRC acceptance of the WOG licensing topical report, WCAP-12910, and our plant specific evaluation, we have decided not to install the loop seal drain lines on Units 1 and 2. The remaining Unit 1 PSV discharge piping support modifications will be implemented for compliance with NUREG 0737, Item II.D.1. Ovens have been installed on Unit 1 to insulate the safety valves and elevate the temperature of the loop seals to reduce the water hammer effect during the initial valve opening.

Our evaluation of WCAP-12910, Rev. 1-A, specific to North Anna has determined that maintaining water-filled loop seals is acceptable for both units since the expected

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setpoint shift is small and the loop seal purge time is within tolerable limits. This produces acceptable results for the over-pressurization transients with the WCAP-12910 models.

The remaining Unit 1 PSV discharge piping support modifications will be implemented during the next two refueling outages, which are currently scheduled for September 1994 and February 1996. Dividing the implementation into two outages is considered advantageous due to the complexity involved in the installation of the discharge piping support modifications, and to allow the use of the 1994 outage for design verification of the remaining modifications.

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

Very truly yours,

J. P. O'Hanlon

for W. L. Stewart
Senior Vice President - Nuclear

cc: U.S. Nuclear Regulatory Commission
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Mr. R. D. McWhorter
NRC Senior Resident Inspector
North Anna Power Station