VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 2, 1992

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

Serial No. 92-141
NL&P/JBL: R1
Docket No. 50-338
License No. NPF-4

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNIT 1
REQUEST FOR NRC STARTUP APPROVAL
STEAM GENERATOR CATEGORY "C-3" INSPECTION RESULTS

North Anna Power Station Unit 1 shut down on December 23, 1991 for a mid-cycle steam generator tube inspection outage. The results of the steam generator inservice inspections have been classified Category "C-3", as defined in Technical Specification 4.4.5.2, for each of the unit's three steam generators, i.e., greater than 1% of the inspected tubes are defective and require plugging. In accordance with the requirements of Technical Specification 4.4.5.5.c, prompt notification of the inspection results was made to the NRC pursuant to 10 CFR 50.72. The required notifications were made on January 10, January 20, and January 24, 1992 for steam generators "C", "A", and "B", respectively. A Licensee Event Report (LER) was subsequently submitted on February 7, 1992 pursuant to 10 CFR 50.73.

The purpose of this letter is to request NRC approval for North Anna Unit 1 return to power operation following this steam generator inspection outage. In this case, return to power operation is defined as entry into Mode 4 because compliance with Technical Specification 3.4.5 requires steam generator operability prior to entry into Mode 4. As specified in Table 4.4-2 of the North Anna Unit 1 Technical Specifications, NRC approval is required prior to operation when the inspection results of any two of the steam generators are classified as Category C-3. We are presently scheduled to enter Mode 4 on March 3, 1992. The inspection results and a technical evaluation of those results have been discussed in detail at our March 2, 1992 meeting. Also, the licensing basis for resumption of power operations has been presented.

A thorough inspection of the steam generator tube bundles has been performed. Tubes identified with defects have been plugged and, where necessary, tube stabilizers have been installed. As a result, steam generator tube bundle integrity has been re-established.

In addition, the Technical Specification requirements for primary-to-secondary leakage monitoring and leakage monitoring capability will continue to be applicable. Also, the conservative primary-to-secondary administrative leakage limits (i.e., 50 gpd maximum

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in any individual steam generator or 150 gpd maximum total steam generator leakage) will continue to be maintained. Further, consistent with our previous commitment, the conservative limit on primary coolant dose equivalent iodine activity (i.e., 75% of the Technical Specification limit) will continue to be maintained. Finally, operation of North Anna Unit 1 will be limited to 95% rated thermal power.

The comprehensive safety evaluation submitted to the NRC on August 6, 1991 (subsequently submitted on August 30, 1991 as WCAP-13034) in combination with the tube integrity evaluation presented to the NRC on March 2, 1992 assures that any degradation currently below the threshold of detection will comply with the requirements of NRC Regulatory Guide 1.121 though the end of this cycle. In addition, the burst pressure reduction due to multiple circumferential cracks, the burst pressure reduction due to combined axial and circumferential degradation, the potential for crack propagation of circumferential cracks due to tube vibration, and the potential leakage during a postulated steam line break for the crack distribution found during the mid-cycle inspection have been assessed and found to be acceptable. This distribution of indications bound the distribution that is expected to exist in the three steam generators in January 1993.

Based on completion of our inspection and repair program and the Regulatory Guide 1.121 assessment for continued operation it is concluded that North Anna Unit 1 can operate in compliance with the requirements of Technical Specifications 3/4.4.5 through January 1993.

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

Very truly yours,

W. L. Stewart
Senior Vice President - Nuclear

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