VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 27, 1992

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

Serial No: 92-226
SPS/RCB/GDM R8
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
REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT NOS. 50-280/92-04 AND 50-281/92-04

We have reviewed your Inspection Report Nos. 50-280/92-04 and 50-281/92-04 dated March 26, 1992. Our response to the Notice of Violation is provided in the attachment.

We understand your concern over the performance of the high-head safety injection pump lube oil temperature control valves. To date, our efforts to rectify this condition have included replacement of valve internals to reduce galvanic attack and periodic flushing of the valves to prevent silt build-up. While these measures have improved valve reliability, we continue to experience occasional difficulties. Therefore, we will continue to monitor valve performance and will take appropriate actions to resolve any identified concerns. Additional corrective actions have been initiated to replace the valves and controllers. After the modifications are complete, an inspection program will be established to evaluate their effectiveness. If required, additional corrective measures will be implemented.

If you have any further questions, please contact us.

Very truly yours,

W. L. Stewart
Senior Vice President - Nuclear

Attachment

IE01
1/1

Copy to: 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

REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION CONDUCTED FEBRUARY 2 - MARCH 7, 1992
SURRY POWER STATION UNITS 1 AND 2
INSPECTION REPORT NOS. 50-280/92-04 AND 50-281/92-04

NRC COMMENT:

During the Nuclear Regulatory Commission (NRC) inspection conducted on February 2 through March 7, 1992, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1991), the violation is listed below:

> 10 CFR 50, Appendix B, Criterion XVI, as implemented by Operational Quality Assurance Program Topical Report (VEP 1-5A, Section 17.2.16), requires, in part, that measures be established to assure that conditions adverse to quality be promptly identified and corrected, and in the case of significant conditions adverse to quality, these measures shall assure that the cause of the condition is determined and corrective actions be taken to preclude repetition.
>
> Contrary to the above, actions taken since 1990 to correct recurring failures associated with the temperature control valves that regulate service water flow to the high head safety injection pumps' lube oil coolers have not been fully effective. Malfunctions continue to occur, the most recent failures occurring on March 2, and 6, 1992, and on September 10, November 11, and December 3, 1991. In all instances, these failures either rendered the automatic lube oil temperature control feature inoperable or resulted in degraded operation.
>
> This is a Severity Level IV Violation (Supplement I).

REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION CONDUCTED FEBRUARY 2 - MARCH 7, 1992
SURRY POWER STATION UNITS 1 AND 2
INSPECTION REPORT NOS. 50-280/92-04 AND 50-281/92-04

(1) Reason for the Violation or, if Contested, the Basis for Disputing the Violation

The original high head safety injection pump air-operated lube oil temperature control valves (TCVs) were not adequately designed for the application in which they were employed. As a consequence, they were subject to corrosion and fouling in service. The temperature controllers have also had a history of operational difficulties. Although these discrepant conditions had been recognized and thoroughly documented in our corrective action program, previous efforts to correct the conditions have achieved only limited success.

(2) Corrective Steps Which Have Been Taken and the Results Achieved

As documented in the Inspection Report, five of the six TCVs had their internals replaced with different materials in an effort to reduce corrosion and binding. Since the issuance of the Inspection Report, the sixth TCV has also been modified. Also, the valves are flushed on a biweekly frequency to reduce silt build-up and fouling. These steps have resulted in some improvement in reliability, but problems with the systems continue to occur.

(3) Corrective Steps That Will be Taken to Avoid Further Violations

Biweekly flushing of the existing TCVs will be continued, and a periodic inspection of valve internal conditions will be initiated. Flushing and inspection intervals will be adjusted appropriately when results of the inspections have been evaluated. We believe that these measures, along with continued operator alertness to nonconforming conditions, will assure valve performance in the interim period until valve replacement is accomplished.

A design change is underway which will replace the TCVs with valves better adapted to the working conditions. After replacement, the new valves will also be flushed on a regular frequency, and an inspection program will be established to evaluate the effectiveness of the modification. The temperature controllers will also be replaced. Methods currently in use for TCV post-maintenance testing, TCV periodic surveillance testing, and TCV controller set point and span establishment will also be reviewed, evaluated, and strengthened, as appropriate.

(4) The Date When Full Compliance Will be Achieved

Full compliance will be achieved when the TCVs have been replaced. This replacement is currently scheduled for completion by July 31, 1992. The temperature controllers will also be replaced to further improve system operation. The controllers are scheduled for replacement by the end of 1992.