

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

June 9, 1992

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

Serial No. 92-367
NAPS/JHL/TAH:R5
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
INSPECTION REPORT NOS. 50-338/92-10 AND 50-339/92-10
RESPONSE TO THE NOTICE OF VIOLATION

We have reviewed your letter of May 15, 1992, which referred to the inspection conducted at North Anna Power Station from March 22, 1992, through April 18, 1992, and reported in Inspection Report Nos. 50-338/92-10 and 50-339/92-10. The letter also transmitted notice of a violation that was identified during the inspection. Our response to the Notice of Violation is attached.

If you have any further questions, please contact us.

Very truly yours,



W. L. Stewart
Senior Vice President - Nuclear

Attachment

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

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

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RESPONSE TO THE NOTICE OF VIOLATION
INSPECTION REPORT NOS. 50-338/92-10 AND 50-339/92-10

NRC COMMENT

During a NRC inspection conducted on March 22 - April 18, 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:

Technical Specification 4.5.2.h requires, as a condition of operability, that for high head safety injection lines with a single pump running, the sum of the injection line flow rates, excluding the highest flow rate is greater than or equal to 384 gpm.

Contrary to the above, testing performed on April 10, 1992, demonstrated that the sum of the injection line flow rates, excluding the highest flow rate was 347 gpm because of incorrectly positioned branch line throttle valves and that this condition existed while the system was required to be operable.

This is a Severity Level IV Violation (Supplement I).

RESPONSE TO THE NOTICE OF VIOLATION

1. ADMISSION OR DENIAL OF THE ALLEGED VIOLATION

The violation is correct as stated.

2. REASON FOR THE VIOLATION

The violation was caused by the repositioning of a branch line throttle valve following the safety injection flow balance test that was conducted during the 1990 Unit 2 refueling outage. Following testing in 1990, stem height measurements of the safety injection branch line throttle valves were taken and locking devices were installed to maintain their position. A question later arose as to whether the "as left" position of the throttle valves had been inadvertently altered during the installation of the locking devices. Personnel were dispatched to measure the stem height positions. These measurements were compared to the previously recorded measurements and were in agreement. During the 1992 flow test, conducted with state of the art ultrasonic flow instrumentation, it was determined that a very small amount of branch line throttle valve movement could produce flows outside the narrow safety injection flow acceptance criteria range provided by Technical Specification 4.5.2.h.

3. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

The throttle valves in the safety injection system branch lines were readjusted to establish flow in accordance with the Technical Specification requirements. The two cold leg safety injection branch lines with the lowest flow rates were verified to have a total flow rate greater than or equal to 384 gpm, as required by Technical Specification 4.5.2.h. The hot leg safety injection flows were within Technical Specification limits and did not require adjusting.

Following readjustment of the valves, locking valve stem covers were installed on the Unit 2 throttle valves. The keyholes in the cover locks were then injected with a sealant material to ensure that the position of the valves are not disturbed during the performance of routine valve lineups or other evolutions. Because these covers restrict access to the valves, but do not directly constrain them, their installation does not result in inadvertent valve movement. The physical attributes of the throttle valves in the safety injection system branch lines make them resistant to random movement caused by vibrations, or system pressure and temperature variations.

An assessment of the low safety injection flows was performed, and it was determined that the acceptance criteria of 10CFR50.46 continued to be satisfied.

4. CORRECTIVE STEPS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

Locking valve stem covers will continue to be used for securing the throttle valves in the safety injection system branch lines instead of the locking cap nuts previously discussed.

A Technical Specification change is also being considered, based on the latest safety analysis, to expand the acceptance range for the safety injection system branch line flow rates.

5. THE DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance has been achieved.