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Virginia Electric and Power Company
North Anna Power Station, Unit #1 LIC. # NPF-4
Docket No. 50-338

24 Hour Reportable Event
Written Follow-Up

Event: Possible Non-conservatism in error allowances for the negative high flux rate trip protection system as specified in the Technical Specifications.
LER/RO 79-152/01T-0

Westinghouse has informed Vepco of a potential reduction in conservatism in the error allowances assumed in the analysis for the Power Range Neutron Flux High Negative Rate. The value currently listed in the Technical Specifications is 0.5% of Rated Thermal Power. This value assumed that the differentiation of the NIS power signal would eliminate all steady state errors in the circuit before the differentiation; therefore, only precision and accuracy errors after the differentiation need be considered. This assumption is non-conservative since errors associated with precision (hysterisis, repeatability, etc.) may not be entirely eliminated by differentiation. When these additional errors are factored into the analysis, a reactor trip may not occur in some cases.

This non-conservatism was discovered by Westinghouse in a re-analysis of the flux rate error allowances.

Vepco is currently awaiting further information from Westinghouse on this matter. After further evaluation, technical specification and/or setpoint changes may be initiated, if necessary, to return the margin of safety in the protection system.

This non-conservatism has had no effect on the plant.

The unit is currently in Mode 5 operation following refueling. The unit will remain in Mode 5 operation for the next few weeks for further maintenance.

W. P. O'REILLY
[redacted]
C. M. UPRIGHT
P. D. CHENDEMI
W. B. KENNA
F. J. LONG
B. E. MURPHY
B. T. SUTHERLAND
R. M. CLARK
Lewis
Dixon
Webster

Moot 5/0

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