

VIRGINIA ELECTRIC AND POWER COMPANY

RICHMOND, VIRGINIA 23261

April 4, 1996

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

Serial No. 96-139
SPS/BCB/GDM R6"
Docket No. 50-281
License No. DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT 2
REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT NOS. 50-280/96-01 AND 50-281/96-01

We have reviewed Inspection Report Nos. 50-280/96-01 and 50-281/96-01 dated March 11, 1996, and the enclosed Notice of Violation for Surry Unit 2. The report identified one cited violation for the failure to promptly identify and correct an input data discrepancy to the FLOWCALC computer program, which provides feedwater and main steam flow input to the plant computer system's calorimetric program. As described in our attached reply to the Notice of Violation, we have evaluated the circumstances that led to the violation and have initiated comprehensive corrective actions.

We have no objection to this letter being made a part of the public record. Please contact us if you have any questions or require additional information.

Very truly yours,



James P. O'Hanlon
Senior Vice President - Nuclear

Attachment

cc: U.S. Nuclear Regulatory Commission
Region II
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Mr. M. W. Branch
NRC Senior Resident Inspector
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REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION CONDUCTED JANUARY 7 - FEBRUARY 10, 1996
SURRY POWER STATION UNITS 1 AND 2
INSPECTION REPORT NOS. 50-280/96-01 AND 50-281/96-01

NRC COMMENT:

"During an NRC inspection conducted on January 7 through February 10, 1996, a violation of NRC requirements was identified. In accordance with the 'General Statement of Policy and Procedure for NRC Enforcement Actions,' NUREG-1600, the violation is listed below:

10 CFR 50, Appendix B, Criterion XVI, Corrective Action, and the licensee's accepted Quality Assurance Program (VEP-1-5A) Section 17.2.16 require measures be established to assure conditions adverse to quality are promptly identified and corrected.

LER 50-280/94-05 documented a March 1994 Unit 1 overpower event which occurred due to ineffective secondary calorimetric program design control. Corrective actions taken in response to the overpower event were described in Virginia Electric and Power Company letters dated June 24 and September 16, 1994. This corrective action included reviewing Unit 2 for similar conditions adverse to quality.

Contrary to the above, corrective actions to the Unit 1 overpower event failed to identify and correct a similar, pre-existing secondary calorimetric problem on Unit 2. As a result, Unit 2 continued to operate for an extended period of time with an incorrect feedwater flow transmitter span input to the secondary calorimetric program. The Unit 2 condition adverse to quality was not identified until November 16, 1995.

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

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1. Reason for the Violation, or, if Contested, the Basis for Disputing the Violation

As a result of the 1994 Unit 1 overpower event, engineering was assigned the responsibility for performing a review of safety-related instrumentation to verify that parameters affected by previous revisions to calculations were consistent with the associated design documents, procedures, computer programs and installed equipment. However, engineering did not develop and document an adequate action plan that reflected individual responsibilities for completing the assigned corrective actions. This resulted in a misunderstanding regarding the scope of the responsibilities assigned to individual groups within engineering. Consequently, the review was not fully implemented as intended.

As a result of the incomplete review, an existing discrepancy between the Unit 2 feedwater flow transmitter differential pressure span values and the Prodac 250 (P-250) computer system FLOWCALC program input data was not identified at that time. The discrepancy, which occurred in 1993 when the Unit 2 feedwater flow transmitters were rescaled, was identified in November 1995 during a review of calculations affected by the Unit 2 core uprate process.

2. Corrective Steps Which Have Been Taken and the Results Achieved

The impact of the FLOWCALC computer program input data discrepancy was evaluated by engineering. The evaluation concluded that the existing conservatism in the calorimetric computer program, CALCALC, was sufficient to offset the calculated inaccuracy of 0.18% indicated power imposed by the FLOWCALC program input data discrepancy. Although the magnitude of the error was small and not safety significant, the FLOWCALC program input data was revised on November 16, 1995 to correct the discrepancy.

As a result of the 1994 overpower event, the design change process was revised to incorporate the necessary controls for developing and implementing setpoint and scaling changes. These controls were proven effective during the successful implementation of the Unit 1 and Unit 2 core uprate in 1995.

The core uprate process encompassed the calculation and scaling changes that affected reactor power. In conjunction with the core uprate, the associated design documents, procedures, computer programs and installed equipment were reviewed and revised, as necessary. It was through this review that the 1993 discrepancy between the Unit 2 feedwater flow transmitter differential pressure span values and the P-250 computer system FLOWCALC program input data was identified.

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

The individuals involved with this violation were coached on the importance of clear communications and the need for a well documented action plan to ensure that corrective actions are properly implemented.

3. Corrective Steps Which Will be Taken to Avoid Further Violations

A task team has been formed to examine the engineering and analysis aspects associated with the inputs, controls, and software for the P-250 calorimetric programs. The task team's recommendations will be reviewed by management and the approved recommendations will be implemented.

As noted in Section 2 above, the core uprate process implemented the required calculation and scaling changes associated with reactor power. However, due to the feedwater flow discrepancy identified in the violation, a systematic review of calculations and scaling which have the potential to require a change in the process control system has been initiated. A detailed action plan has been developed that defines the purpose, scope of work, and responsibilities for the implementation of the review. This review is being implemented jointly by corporate engineering, station engineering, and the procedures group and is designed to confirm the consistency of associated design documents, procedures, computer programs and installed equipment.

Expectations regarding the responsibilities associated with the implementation and documentation of assigned corrective actions are being reinforced by management. To strengthen the implementation of corrective actions, guidance will be provided to supervisory personnel on when it is necessary to develop formal, detailed action plans. This guidance will consider several factors, including the scope and complexity of the corrective action and the number of departments involved. In addition, management has initiated a review of corrective actions for Licensee Event Reports and Notices of Violation to ensure completeness and effectiveness.

4. The Date When Full Compliance Will be Achieved

Full compliance will be achieved upon completion of the engineering review and provision of the action plan guidance noted in Section 3 above. These actions will be completed by July 1996.