

**VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261**

March 29, 2007

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

Serial No. 06-936A
NLOS/GDM R0
Docket Nos. 50-280/281
License Nos. DPR-32/37

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
PROPOSED TECHNICAL SPECIFICATIONS CHANGE
ADDITION OF ASTRUM METHODOLOGY TO CORE OPERATING LIMITS REPORT
REFERENCES AND REVISED LARGE BREAK LOCA ANALYSIS
REQUEST FOR ADDITIONAL INFORMATION

In a letter dated November 16, 2006 (Serial No. 06-936), Virginia Electric and Power Company (Dominion) requested amendments in the form of changes to the Technical Specifications (TS) to Facility Operating License Numbers DPR-32 and DPR-37 for Surry Power Station Units 1 and 2, respectively. The proposed change would add a reference in Technical Specification 6.2.C, "Core Operating Limits Report (COLR)," to permit the use of the Westinghouse Best-Estimate Large Break Loss of Coolant Accident (BE-LBLOCA) analysis methodology using the Automated Statistical Treatment of Uncertainty Method (ASTRUM) for the analysis of LBLOCA.

The NRC staff subsequently notified Dominion on February 6, 2007, that they needed additional information to complete their review of the proposed license amendment. A conference call was held the same day to discuss the staff's request and Dominion's proposed response. At the conclusion of the call, Dominion agreed to provide the additional information requested within 60 days. This information is provided in the attachment.

The additional information provided herein does not affect the significant hazards consideration determination or environmental assessment that were previously provided in support of the proposed license amendment request.

If you have any questions or require additional information, please contact Mr. Gary D. Miller at (804) 273-2771.

Very truly yours,



Gerald T. Bischof
Vice President – Nuclear Engineering

Attachment:

Response to NRC Request for Additional Information, Surry BE-LBLOCA ASTRUM
Analysis

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Suite 23 T85
Atlanta, Georgia 30303

Mr. N. P. Garrett
NRC Senior Resident Inspector
Surry Power Station

Commissioner
Bureau of Radiological Health
1500 East Main Street
Suite 240
Richmond, Virginia 23218

Mr. S. P. Lingam
NRC Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8G9A
Rockville, Maryland 20852

Mr. L. N. Olshan
NRC Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 8G9A
Rockville, Maryland 20852

ATTACHMENT

Response to NRC Request for Additional Information
Surry BE-LBLOCA ASTRUM Analysis

Virginia Electric and Power Company
(Dominion)
Surry Power Station Unit 1 and 2

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION
ASTRUM BE-LBLOCA QUESTIONS

SURRY POWER STATION UNITS 1 AND 2

NRC Question 1

To show that the referenced generically approved LBLOCA analysis methodology applies specifically to each of the Surry plants, provide a statement, for each unit, that VEPCO and its vendor have ongoing processes that assure that the ranges and values of the input parameters for the Surry Plants' LBLOCA analyses conservatively bound the ranges and values of the as-operated plant parameters. Furthermore, if both Surry plant-specific analyses are based on the same model and/or same analyses, then justify that the model or analyses apply to both Surry plants (e.g., if one Surry unit's design has a different vessel internals design than the other unit's vessel internals design, the model wouldn't apply to both Surry plants.)

Dominion Response

Dominion and Westinghouse Electric Company (analysis vendor) have ongoing processes that assure that the ranges and values of input parameters for the Surry Units 1 and 2 Best Estimate Large Break LOCA (BE-LBLOCA) analysis using ASTRUM bound the ranges and values of the as-operated plant values for those parameters. Dominion developed detailed data for plant input parameters in accordance with the approved analysis methodology (WCAP-16009-P-A). There are no differences between Surry Units 1 and 2 that affect the analytical input for the BE-LBLOCA analysis using ASTRUM; consequently, the BE-LBLOCA analysis is applicable to both units. Dominion will continue to evaluate plant issues and changes on a unit-specific basis. Future reporting of the peak clad temperature (PCT) pursuant to the requirements of 10 CFR 50.46 will also be on a unit-specific basis.

NRC Question 2

Please describe how pre-existing oxidation is factored into the results for maximum (local) oxidation. If pre-existing oxidation was considered to be negligible because all the fuel is fresh fuel, please state that it is all fresh fuel. If pre-existing oxidation is considered in the reported results, or if pre-existing oxidation is not reflected in the results, please provide an estimate of the contribution of the pre-existing oxidation.

Dominion Response

Pre-existing oxidation was not considered in determining the maximum local oxidation results for Surry Units 1 and 2 in our initial submittal. The maximum expected oxidation was determined as the total of the normal operation (pre-transient) and LOCA transient oxidation for any time in life. Pre-transient oxidation increases with burnup, from zero at

beginning of life (BOL) to a maximum value at the discharge of the fuel (end of life, or EOL). The transient oxidation decreases from 5.26% (calculated in the Surry Units 1 and 2 ASTRUM analysis) to a negligible value at EOL. It has been confirmed that the sum of pre-transient plus transient oxidation remains below 17% at all times during the operational life of the fuel for Surry Units 1 and 2.