

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

July 25, 1986

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. Lester S. Rubenstein, Director
PWR Project Directorate No. 2
Division of PWR Licensing-A
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Serial No. 85-524A
E&C/GLD/ap
Docket Nos. 50-280
50-281
50-338
50-339
License Nos. DPR-32
DPR-37
NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNIT NOS. 1 AND 2
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2
USE OF NOTRUMP GENERIC ANALYSES TO SATISFY TMI ACTION ITEM II.K.3.31

By letter dated July 26, 1985, Virginia Electric and Power Company committed to reference generic analyses utilizing the new NRC approved NOTRUMP Small Break LOCA (SBLOCA) Evaluation Model (EM), as a means of satisfying TMI Action Plan Item II.K.3.31. In Reference 1, the NRC Staff indicated that the resolution of TMI Action Plan Item II.K.3.31 may be accomplished by generic analyses to demonstrate that the previous NRC approved WFLASH SBLOCA EM results were conservative when compared with the new NOTRUMP SBLOCA EM. Such generic studies were undertaken by the Westinghouse Owners Group (WOG) of which the Company is a participating member. The WOG has completed these generic studies and has submitted the results of the analyses to the NRC in the topical report WCAP-11145 (Reference 2). The purpose of this letter is to inform you that the Company is referencing topical report WCAP-11145 in order to satisfy the requirements of TMI Action Item II.K.3.31 for the North Anna Power Station Unit Nos. 1 and 2 and Surry Power Station Unit Nos. 1 and 2.

Topical report WCAP-11145 documents the results of a series of SBLOCA analyses performed with the NRC approved NOTRUMP SBLOCA Evaluation Model. Cold leg break spectrum analyses were performed for the limiting SBLOCA plant from each of the Westinghouse 4-loop, 4-loop Upper Head Injection (UHI), 3-loop, and 2-loop plant categories. The limiting SBLOCA plant in each category was defined on the basis of previous SBLOCA analyses which were performed with the NRC approved WFLASH SBLOCA EM. In addition to the cold leg break spectrums, a hot leg and pump suction break were performed as part of the 4-loop plant analyses, confirming that the cold leg was still the worst break location. Comparison of the NOTRUMP cold leg break spectrum results with the previously generated WFLASH results, showed that the WFLASH results were conservative for all plant categories. In particular, the 3-loop plant category results showed

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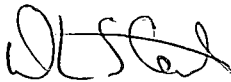
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that the NOTRUMP SBLOCA EM calculated a limiting Peak Clad Temperature (PCT) which was 586°F lower than that previously calculated by the WFLASH SBLOCA EM.

The generic results documented in WCAP-11145, demonstrate that a plant specific reanalysis of either the North Anna or Surry 3-loop plants with the NOTRUMP SBLOCA EM would result in the calculation of a limiting PCT which would be significantly lower than the PCT currently calculated with the WFLASH SBLOCA EM. Hence, the WFLASH SBLOCA EM results which currently form the licensing basis for North Anna and Surry are conservative and still valid for demonstrating the adequacy of the Emergency Core Cooling System to mitigate the consequences of a SBLOCA, as required by 10CFR50.46. It is therefore concluded that a plant specific analysis is not needed in order for North Anna and Surry to comply with TMI Action Item II.K.3.31. Rather, the Company references WCAP-11145 in order to comply with TMI Action Item II.K.3.31 on a generic basis, in accordance with Reference 1. This completes the action necessary to satisfy TMI Action Item II.K.3.31 for North Anna and Surry.

Should you have any questions, please contact us at your earliest convenience.

Very truly yours,



W. L. Stewart

Reference:

1. NRC Generic Letter 83-35 from D. G. Eisenhower, "Clarification of TMI Action Plan Item II.K.3.31", November 2, 1983.
2. Letter from L. D. Butterfield (WOG) to J. Lyons (NRC), "Westinghouse Owners Group Transmittal of WCAP-11145", OG-190, June 11, 1986.

cc: Dr. J. Nelson Grace
Regional Administrator
NRC Region II

Mr. J. L. Caldwell
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North Anna Power Station

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Surry Power Station

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