

April 1, 1985



VIRGINIA POWER

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. James R. Miller, Chief
Operating Reactors Branch No. 3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 85-074
NO/ESH: dao
Docket Nos. 50-338
50-339
License Nos. NPF-4
NFP-7

Gentlemen:

VIRGINIA POWER
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2
PROPOSED TECHNICAL SPECIFICATION CHANGES

Pursuant to 10 CFR 50.90, Virginia Power requests an amendment in the form of changes to the Technical Specifications to Operating Licenses NPF-4 and NFP-7, for North Anna Unit Nos. 1 and 2.

The proposed Technical Specification changes will reduce the minimum number of thimbles from 38 to 26 thimbles, to obtain a flux map for routine monthly surveillance of hot channel factors. A reduced number of thimbles flux map will only be allowed when 38 thimbles cannot be obtained due to thimble blockage, or inoperable movable incore detector equipment. A reduced number of thimbles flux map can only be used to verify hot channel factors for monthly surveillance, and additional uncertainties will be applied to the measured hot channel factors to ensure compliance with their Technical Specification limits. The proposed changes will not adversely affect the safe operation of the plant since all hot channel factors will be within their Technical Specification limits. The proposed Technical Specification changes for North Anna Unit 1 are provided in Attachment 1. The proposed Technical Specification changes for North Anna Unit 2 are provided in Attachment 2. A Safety Analysis for the proposed changes is included in Attachment 3. VEP-NOS-8, "A Study of the Effects of a Reduced Number of Thimbles of the Results of INCORE Flux Map Analysis," is provided as Attachment 4.

Virginia Power satisfactorily maintains the movable incore detector system at the North Anna Power Station. The incore detector tubes are routinely cleaned during refueling outages, as necessary, to ensure

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the maximum possible number of operable thimbles. Incore detectors which are determined to be inoperable are replaced during scheduled maintenance outages. If multiple failures occur and the supply of new detectors is not adequate, detectors will be replaced to permit access to the maximum number of thimbles for flux map analysis. Limit switch corrections are made whenever large mesh corrections are noted in the final INCORE computer code results.

This maintenance should ensure that the maximum number of thimbles are available for obtaining flux map data. However, extraordinary circumstances could prevail which do not allow for the normal monthly surveillance of hot channel factors, and the unit would have to shut down due to a surveillance requirement rather than actual hot channel factor violations. In order to avoid a forced reactor outage due to a reduced number of accessible flux map thimbles, the monthly surveillance requirements could be met with the proposed Technical Specification changes. VEP-NOS-8 (Attachment 4) clearly demonstrates that all hot channel factors can be accurately monitored with a reduced number of thimbles flux map if the proposed additional uncertainties are added to the measured hot channel factor values. Finally, the reduced number of thimbles flux map will reduce the station man-rem exposure by reducing the number of at-power containment entries to repair the movable incore detector system.

This request has been reviewed and approved by the Station Nuclear Safety and Operating Committee and the Safety Evaluation and Control Staff. It has been determined that this request does not involve an unreviewed safety question as defined in 10 CFR 50.59.

This change does not pose a significant hazards consideration as defined in the Federal Register, 48FR14870. The basis for this determination is provided in example (vi) which partially states, "A change which either may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptance criteria with respect to the system or component specified in the Standard Review Plan". The proposed changes reduce the minimum number of thimbles required for monthly surveillance of hot channel factors (only if 38 thimbles can not be physically monitored), but additional conservatism will be applied to the measured hot channel factors obtained with a reduced number of thimbles flux map to ensure that all hot channel factors are within their Technical Specification limits. The proposed changes have been reviewed with respect to the accident analyses in the North Anna UFSAR and none are affected, therefore these changes do not pose a significant hazards consideration.

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We have reviewed this request in accordance with the criteria in 10 CFR 170.12. A voucher check in the amount of \$150 is enclosed as an application fee.

Very truly yours,

W. L. Stewart

Attachments

1. Proposed Technical Specification Changes Unit 1
2. Proposed Technical Specification Changes Unit 2
3. Safety Evaluation
4. VEP-NOS-8, "A Study of the Effects Reduced Number of Thimbles on the Results of INCORE Flux Map Analysis", October, 1983.
5. Voucher Check for \$150

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

Mr. M. W. Branch
NRC Resident Inspector
North Anna Power Station

Mr. Charles Price
Department of Health
109 Governor Street
Richmond, Virginia 23219

COMMONWEALTH OF VIRGINIA)
)
CITY OF RICHMOND)

The foregoing document was acknowledged before me, in and for the City and Commonwealth aforesaid, today by W. L. Stewart who is Vice President - Nuclear Operations, of the Virginia Electric and Power Company. He is duly authorized to execute and file the foregoing document in behalf of that Company, and the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 1st day of April, 19 85.

My Commission expires: February 10, 19 89.

Carol M. Moore

Notary Public

(SEAL)

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