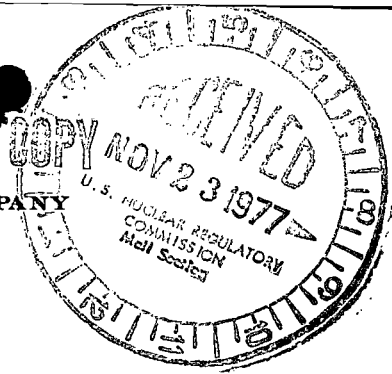


REGULATORY DOCKET FILE COPY
VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261



November 22, 1977

Mr. Edson G. Case
Acting Director of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No. 382A/092477
PO&M/ALH:dgt
Docket Nos. 50-280
50-281

Attention: Mr. Robert W. Reid, Chief
Operating Reactor Branch 4

License Nos. DPR-32
DPR-37

Dear Sir:

In September, we implemented a temporary solution to the net positive suction head (NPSH) problem in the low head safety injection and recirculation spray pumps at Surry. Your staff agreed with our temporary solution, but requested that we provide a proposal for a permanent solution and a schedule by November 22, for its implementation. The purpose of this letter is to present our proposal and our schedule for your approval. The proposed equipment modifications and supporting NPSH and containment integrity analyses are presented in the attachment to this letter.

In selecting the modifications, we decided to use passive components, minimal piping changes, and minimal control logic changes. This provides for relative ease of implementation and simplicity of operation and maintenance. This method necessarily results in a small reduction in recirculation spray and low head safety injection flow as compared to original design. We believe that this is more acceptable than a complex modification involving motor-operated valves, complex control logic and the enormous construction expense associated with changes of this nature. Further, complex active control systems provide more potential for component failures than do passive systems.

We have reviewed all of the proposed modifications with our nuclear steam supply system vendor's staff. As a result, it has been determined that the ECCS analysis which will be conducted to support steam generator replacement will include the system characteristics resulting from the changes presented herein.

We have also assessed the effect that the proposed changes will have on the site boundary dose and have discussed this with members of your staff. We estimate that the modifications proposed herein will increase the site boundary dose to the thyroid by about 8 rem. This value is conservative and was determined by using the latest licensing criteria approved by your staff. However, we are still working with your staff on the overall question of site boundary dose as a result of a meteorology data change at Surry. Until this issue is closed, we cannot submit a final site boundary dose analysis for Surry.

We have begun detailed design work on the proposed modifications and expect to complete this design work in early 1978. We have checked the availability of material required to implement the proposed modifications but do not intend to purchase material until NRC approval for the modifications is granted. We are planning to implement the proposed modifications during the scheduled steam generator replacement outages for each Surry unit. We therefore, request your prompt approval of the proposed modifications.

Very truly yours,



C. M. Stallings
Vice President-Power Supply
and Production Operations

Attachment