

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

October 18, 1979

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
Attn: Mr. O. D. Parr, Chief  
Light Water Reactors Branch No. 3  
Division of Project Management  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Serial No. 819  
LQA/ESG:pwc  
Docket Nos. 50-338  
50-339

Dear Mr. Denton:

Our letter of April 17, 1979, Serial No. 214/032179, provided you with details concerning our proposed overpressure protection system for North Anna Units 1 and 2. Recent telephone conversations with members of the Staff and its consultants have revealed additional requirements which must be satisfied by the system. Accordingly, we have modified the system design and proposed technical specifications to address the Staff comments.

For Reactor Coolant System temperatures between 320°F and 340°F, we have proposed (on Unit 2) that maximum pressurizer level be limited, in lieu of requiring both power operated relief valves (PORVs) to be operable. The Staff has indicated that this approach is acceptable, provided that an alarm be provided during this interval to warn the operator that an overpressure event is in progress. Such an alarm, meeting the requirements of the Staff, will be provided on Unit 2 prior to fuel loading. A schematic of the alarm circuitry is attached.

Utilization of a pressurizer bubble for overpressure protection will not be necessary for Unit 1. Consequently, protection will be provided by the PORVs over the entire temperature range of interest. We will revise our request of August 6, 1979 (Serial No. 629) for an amendment to the Unit 1 operating license in the near future to reflect this. No additional alarms will be required for Unit 1 with these provisions for overpressure protection.

Also discussed with the Staff were the power source assignments for the overpressure protection system and the Reactor Coolant System letdown isolation valves. In order to ensure that loss of a power source would not both isolate letdown, and also disable one PORV circuit, the PORV electronics for PT402 will be moved from Cabinet #1 (Red) to Cabinet B (White). Power for the SOVs for this channel will also be from the (White) source. Since this will result in the letdown isolation valves and the PORV circuits being supplied from separate power sources, this change will satisfactorily address the Staff's concerns in this area. This change will be completed prior to fuel loading for Unit 2. A similar change will be made in the Unit 1 design, and will be implemented during installation of the overpressure protection system during the current refueling outage.

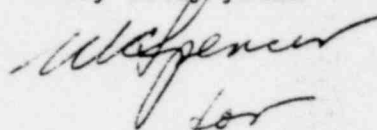
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Several minor revisions have been made to the proposed Unit 2 technical specifications to reflect the final system design and Staff comments. The revised specifications are attached.

Based on the above information, we believe that the Staff should now be able to complete its review, and to conclude that the overpressure protection systems for North Anna Units 1 and 2 are acceptable.

Very truly yours



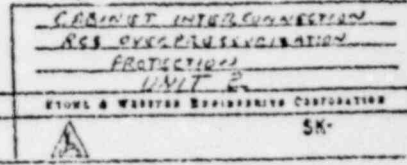
Sam C. Brown, Jr.  
Senior Vice President-Power Station  
Engineering and Construction

Attachments:

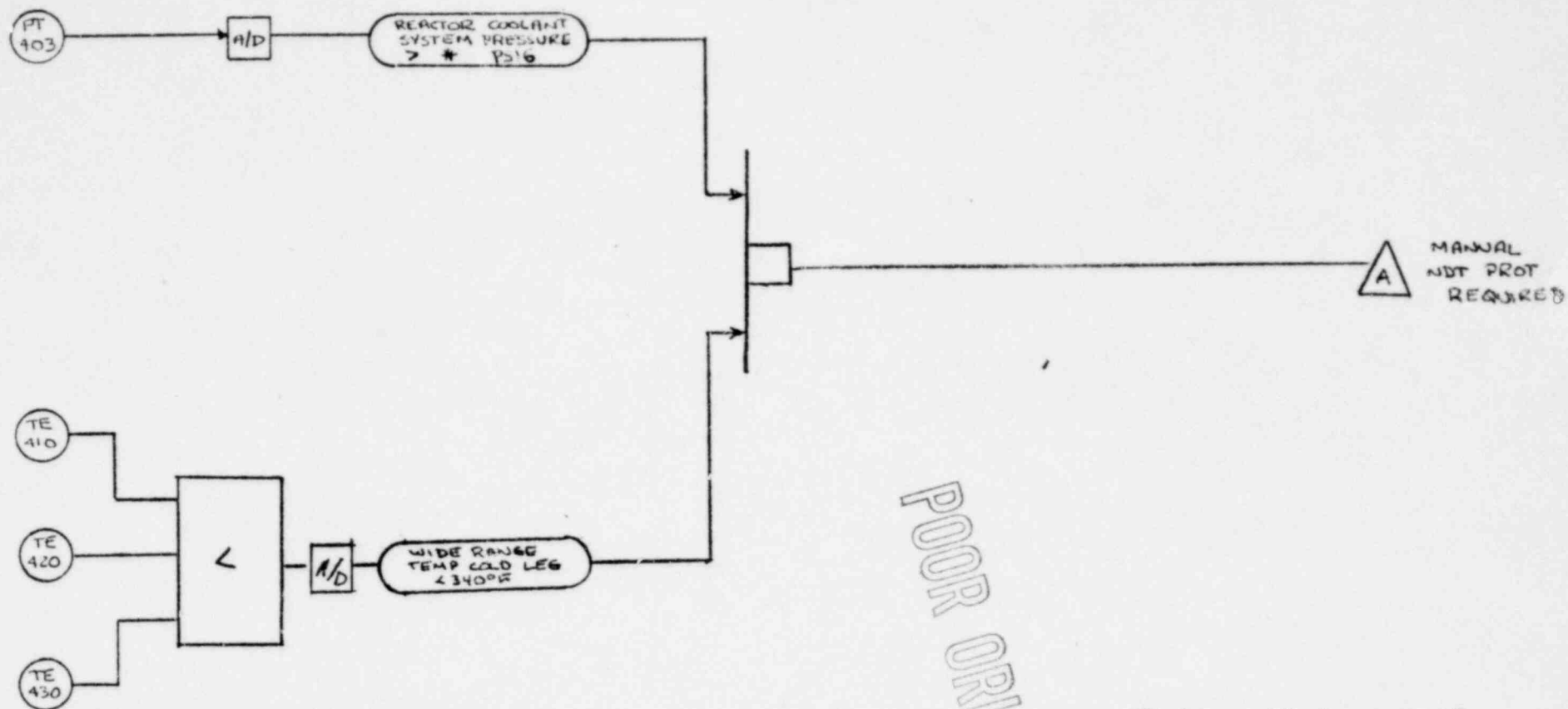
- (1) Unit 2 Alarm Design for 320°-340°F Operation
- (2) Proposed Unit 2 Technical Specifications

cc: Mr. A. Schwencer, Chief  
Operating Reactors Branch No. 1

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\*To be selected - on basis of  
10 minute operator action time

PT 402 will have same  
arrangement

POOR ORIGINAL

ATTACHMENT 1B

LOGIC DIAGRAM - UNIT 2 ALARM FOR 320F-340F OPERATION

PSEC 101179

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