

PDR

FEB 26 1974

Docket No. 50-263

Thomas A. Ippolito, Chief, Electrical, Instrumentation & Control
Systems Branch, L

GENERAL ELECTRIC PROPOSED PROMPT RELIEF TRIP (PRT) SYSTEM FOR
MONTICELLO

On February 20 and 21, 1974, a meeting chaired by J. J. Shea, ORB-2, was held with General Electric and Northern States Power Company to discuss the proposed Prompt Relief Trip System intended to enhance the scram reactivity insertion rate which was found by G.E. to be deficient toward the end of the fuel cycle for BWRs in general.

A brief summary of an earlier G.E. presentation on the subject was given as reported in my memo to you of October 18, 1973.

Additional information was presented on the details of the PRT implementation in Monticello largely contained in the applicant's submission of January 23, 1974.

The PRT, as proposed during this meeting, is intended to satisfy the requirements of IEEE 279.

Our review of the electrical and instrumentation aspects of the proposed PRT has not been performed, and questions such as single failure proofness, interaction with the ADS, reliability with regard to function performance on demand, testability and inadvertent actuation cannot be answered at this time.

The applicant is aiming at getting our approval for installing a PRT but not "outrating" it until our review is complete and our approval final.

Technical aspects of keeping the PRT de-activated after installation are not unworkable.

During the discussion with the applicant and G.E. the following items came up that are of interest in making a determination of the safety merits of the PRT as proposed in the Monticello case:

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1. The PRT function, without any other design changes considered, will be required only for something like 20% of the operating life of the plant, toward the end of the fuel cycle, yet it will be challenged throughout the fuel cycle.
2. Not all viable alternatives and combinations thereof have been considered and/or analyzed with specific reference to the present Monticello design. A notable case in point is that it has not been analyzed with reference to the recirculation pump trip as implemented for the ATWS fix.
3. The present Monticello design has a reactor scram initiated by low condenser vacuum before a turbine trip setpoint is reached. The presently available and/or enhanced turbine bypass capability with possible changes in the bypass system have not been analyzed.
4. The question of inadvertent and/or unnecessary actuations in conjunction with the bad history of the relief valves sticking open remains at best, a mute one.

Demetrios L. Basdekas
Electrical, Instrumentation &
Control Systems Branch
Directorate of Licensing

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