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NUCLEAR ENGINEERING SERVICES DEPARTMENT
CALVERT CLIFFS NUCLEAR POWER PLANT
LUSBY, MARYLAND 20657

June 30, 1989

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Auxiliary Feedwater (AFW) Actuation Delay Time Amendment

REFERENCE: (a) Letter from Mr. J. A. Tiernan (BG&E) to NRC Document Control
Desk, dated January 20, 1989, Request for Amendment

Gentlemen:

This letter is in response to a request for additional information regarding Reference (a). The information provided below addresses questions asked by Mr. Don Katze (NRC). We understand that this information will help resolve the remaining issues on our amendment request.

NRC Question:

Why is the revised loss of feedwater event (i.e., with delayed auxiliary feedwater) not analyzed for peak pressure?

BG&E Response:

The loss of feedwater event is typically analyzed with respect to Reactor Coolant System (RCS) peak pressure and steam generator inventory depletion criteria. The differences between these two cases are listed in Updated Final Safety Analysis Report (UFSAR) section 14.6.3.2.

The analysis of the event for RCS peak pressure is performed to assure that the RCS upset pressure limit is not exceeded during the event. As presented in the UFSAR chapter 14.6, the peak pressure is reached in about 25.3 seconds, well before any auxiliary feedwater delivery. Since the RCS peak pressure case is not sensitive to auxiliary feedwater delivery time, it was not reanalyzed.

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NRC Question:

What code was used in the analysis and what is its pedigree?

BG&E Response:

Combustion Engineering (CE) performed the analysis using the CESEC computer code. CESEC has been reviewed and approved by the NRC. It was submitted as the Attachment 1-P to LD-82-001 "CESEC, Digital Simulation of a CE NSSS," A. E. Scherer (CE) to NRC, dated January 6, 1982. The SER was issued as an Attachment to the letter from Mr. D. M. Crutchfield (NRC) to Mr. D. J. Vandewall (Consumer's Power), dated February 14, 1984.

NRC Question:

Why does the Motor-Driven Feedwater Pump (MDFP) need an actuation delay time extension?

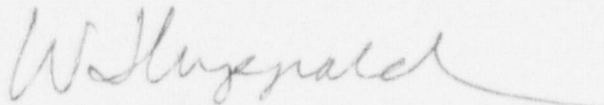
BG&E Response:

The main purpose of the amendment request is to delay the start time for the steam-driven AFW pump. However, the analysis performed to justify the delay on the steam-driven pump response time also bounds the MDFP response time, and therefore, justifies the delay for both. This was discussed in Reference (a). The need and justification for a license amendment are two separate and independent items. The need for the delay in the actuation time was not discussed in the Request for Amendment, but is provided below.

The delay in actuation time for the MDFP will provide greater flexibility with regard to emergency diesel generator (EDG) loading. The accident loading sequence for the EDGs causes the MDFP to be started very early in the sequence. Our current EDG load is approaching the machine capacity limit. There is very little margin for adding additional accident loads. By delaying the MDFP actuation time, it would provide the flexibility to add additional accident loads or to reduce the loading in the EDG.

Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



W. J. Lippold
General Supervisor

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