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August 1, 1983

1CAN088301

Director of Nuclear Reactor Regulation  
ATTN: Mr. J. F. Stolz, Chief  
Operating Reactors Branch #4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
Reactor Coolant Pump Trip -  
Generic Letter 83-10f  
(NUREG-0737 Item II.K.3.5)

Gentlemen:

AP&L has been working with B&W and the B&W Owners Group to respond to NRC requests concerning the Reactor Coolant Pump (RCP) trip issue as outlined in NRC Generic Letter 83-10f (0CNA028314). Our letter dated July 1, 1983, (1CAN078301) indicated that our plans and schedule would be submitted by August 1, 1983.

The subject NRC letter provided specific criteria and guidelines for resolution of the RCP trip issue. The following is AP&L's plan for addressing those criteria.

Consistent with B&W analyses and recommendations, it is AP&L's position that reactor coolant pumps should be tripped if indications of a small break LOCA (SBLOCA) exist. Further, it is highly desirable to not trip the RCP's during certain non-LOCA events as an aid in the mitigation of the transient. Consistent with this philosophy, AP&L chose the concept of using "loss of subcooling margin" as the indicator for pump trip as documented by our letter to you dated January 31, 1983 (1CAN018307). It has been demonstrated that a loss of subcooling margin will occur for those SBLOCA's where a pump trip is required to show compliance with 10CFR50.46. It is the position of AP&L and B&W that manual RCP trip can be achieved safely and reliably by the operator based on this parameter.

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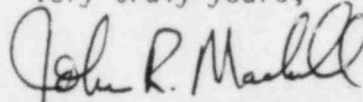
In support of this position, AP&L has undertaken a program which will demonstrate that subcooling margin is an appropriate indicator for RCP trip, yet will still allow continued RCP operation for steam generator tube ruptures (SGTR) less than or equal to a double ended rupture. Additional non-LOCA transients will be examined to demonstrate that under realistic conditions, an indication requiring RCP trip is unlikely for those transients.

Concerning the NRC guidance for justification of manual trip provided in Generic Letter 83-10f, analysis results will be provided as described. Specifically, the results of Appendix K type analyses using the CRAFT2 code will be provided which demonstrates the combination of break sizes and RCP trip times which result in a violation of 10CFR50.46 limits. Also, the results of a "best estimate" SBLOCA analysis will be provided to substantiate the time available for a required RCP trip and the time period when trip is not recommended. The time for operator action will be determined and justified.

Our response will also address the quality level of RCP trip-related instrumentation, the adequacy of the Emergency Operating Procedures, and operator training relating to RCP trip.

The final submittal schedule on this subject is limited by the analytical work being performed for the B&W Owners Group by B&W. Based on B&W's schedule of December 1983, for the generic report, AP&L expects to make final submittal by January 1, 1984.

Very truly yours,



John R. Marshall  
Manager, Licensing

JRM:CHT:s1