

Docket No. 50-313

DEC 7 1976

Arkansas Power & Light Company
ATTN: Mr. J. D. Phillips
Senior Vice President
Production, Transmission
and Engineering
Sixth and Pine Streets
Pine Bluff, Arkansas 71601

Gentlemen:

RE: ARKANSAS NUCLEAR ONE - ANO-1

During the course of our review of emergency core cooling system (ECCS) evaluation models, it has come to our attention that the Babcock and Wilcox (B&W) ECCS evaluation model, which was used for your facility, uses a nucleate boiling heat transfer correlation during blowdown after critical heat flux (CHF) is first predicted. This does not conform to the requirements of Appendix K to 10 CFR 50. The criteria for compliance with Appendix K have been established by the NRC staff and discussed with B&W representatives. Enclosed is a copy of our letter to B&W requesting that a corrected ECCS model be submitted for our evaluation as soon as possible.

This matter is similar to one identified with respect to another nuclear steam system supplier's evaluation model; and, based on our experience in connection with developing a correction for that model, we have concluded that there are acceptable correlations which can be used and which have a small effect on the calculated peak clad temperature. It is expected that the effect on calculated peak clad temperature would be small enough so that modification of your technical specifications would not be required; however, this must be verified for your facility by reevaluation of the ECCS cooling performance using a corrected model.

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Accordingly, submit as soon as possible a reevaluation of your ECCS cooling performance using an NRC staff approved model that does not use a nucleate boiling heat transfer correlation during blowdown after CHF has been predicted by the approved CHF correlation.

Sincerely,

Original signed by
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

cc w/enclosure.
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