

DEC 06 1976

Dockets Nos. 50-200

50-273
and 50-287

Duke Power Company
ATTN: Mr. William J. Parker, Jr.
Vice President
Steam Production
Post Office Box 2173
422 South Church Street
Charlotte, North Carolina 28242

Gentlemen:

RE: ECCS UNITS NOS. 1, 2 & 3

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 may not conform to the requirements of Appendix K to 10 CFR Part 43. The criteria for compliance with Appendix K has 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 will not be required; however, this must be verified for your facility by reevaluation of the ECCS cooling performance using a corrected model.

ECCS 2

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

Sincerely,

Original signed by

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

cc: Mr. William L. Porter
Duke Power Company
P. O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

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