UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PRC

July 2, 1984

Docket Nos: 50-413
and 50-414

MEMORANDUM FOR: The Atomic Safety and Licensing Board for the Catawba Nuclear Station, Units 1 and 2 (J. Kelley, P. Purdom, R. Foster)

FROM: Thomas M. Novak, Assistant Director for Licensing
Division of Licensing

SUBJECT: BOARD NOTIFICATION REGARDING EQUIPMENT QUALIFICATION OF EQUIPMENT LOCATED IN THE CATAWBA DOGHOUSES (BN 84-126)

This Notification is provided in accordance with NRC procedures regarding Board Notifications and is deemed to provide information material and relevant to safety issues in the Catawba OL proceeding. The appropriate parties are being informed by copy of this memorandum.

On June 8, 1984, Duke Power telephoned Mr. Kerry Landis at Region II to notify the NRC of a potentially reportable item relating to recent information concerning the analysis performed by Duke Power for a Main Steam Line Break (MSLB) in the Catawba Nuclear Station doghouses. Based upon the original Westinghouse analysis for an in-containment MSLB which considered a saturated steam condition in the steam generators, Duke Power also had assumed a saturated steam condition for a MSLB in the doghouses which are located outside containment. The results of this analysis served as a basis for doghouse design, including resulting environmental parameters to be employed for equipment qualification in this area of the plant. Westinghouse has since determined that a MSLB can cause steam generator tubes to uncover, allowing superheated steam to form, generating higher steam line exit temperatures. Based upon this new, preliminary mass/energy release datum from Westinghouse, revised Duke Power environmental analysis indicates an increase in doghouse temperature greater than the previous design basis of 330°F. Currently, the doghouse equipment qualification documentation is based upon the 330°F parameter.

By letter dated June 15, 1984, Duke Power Company informed the NRC staff that it has determined that some of the essential components that must function to mitigate the consequences of a MSLB are located in the doghouses. The applicant has not yet determined if any design modifications or revision to equipment qualification documentation will be necessary.

The applicant has reviewed this concern with respect to its pending request to load fuel and perform pre-critical testing for Unit 1 of the Catawba Nuclear Station, and has concluded that the consequences of an MSLB would be less

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severe than analyzed in FSAR Section 15.1.5 for the following reasons:

1) Prior to initial criticality, there would be no fission product inventory in the core.

2) The moderator temperature coefficient at beginning-of-life (BOL) is slightly positive. Therefore, the core would not go critical as a result of a MSLB accident.

The applicant's present action plan for resolving this problem is to complete its review of the effects of this overtemperature condition, determine if any plant modifications or revisions to equipment qualification documentation are necessary, schedule for their implementation (should the final analysis indicate that modifications are required), and submit a report by July 1984.

This item may have generic implications for all PWR(s). The staff's review of this item is underway, and we will keep all Boards informed of its status as new information becomes available.

Thomas M. Novak, Assistant Director
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cc: SECY (2)
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See next page
ACRS (10)
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EQB
ASB

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Catawba Unit 1
Docket No. 50-413/414

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