

Mr. William R. McCollum
Site Vice President
Catawba Nuclear Station
Duke Power Company
4800 Concord Road
York, South Carolina 29745-9635

November 19, 1996

SUBJECT: CATAWBA NUCLEAR STATION - STANDBY NUCLEAR SERVICE WATER POND
ANALYSIS MODEL (TAC NOS. M94192, M94193, M95256, AND M95257)

Dear Mr. McCollum:

As a result of a Region II initiative (Task Interface Agreement, TIA 95-10), the staff revisited the validity of the calculations and model used by the Duke Power Company (DPC) for predicting the safety performance of the Standby Nuclear Service Water Pond (SNSWP) to mitigate the consequences of an accident. In a related action, DPC requested and subsequently received Amendments 152 (for Unit 1) and 144 (for Unit 2) to raise the minimum water level in the SNSWP by 1 foot. One of DPC's submittals to support these amendments, dated September 10, 1996, contains details of DPC's analysis model, raw data, and related information. The staff did not report its detailed review of that submittal in the safety evaluation associated with Amendments 152 and 144.

The enclosed Safety Evaluation, performed by the NRC Office of Nuclear Material Safety and Safeguards (NMSS), sets forth details of the staff's review of the September 10, 1996, submittal. The staff concludes that (1) raising the pond water level (approved by Amendments 152 and 144) would have no detrimental effect on the performance of the pond; (2) peak pond temperature for a loss-of-coolant accident in one unit and normal shutdown in the other, under conditions of worst-case meteorology, would be less than 100 °F; and (3) the pond could supply water below 92 °F for up to 12.5 hours. DPC's analyses took into consideration the best estimates of heat load, meteorology and thermal hydraulic behavior of the pond. The staff's evaluation and conclusions supplement Section 9.2.5, "Ultimate Heat Sink," of the Catawba Safety Evaluation Report (NUREG-0954) and supplements.

Sincerely,

Original signed by:

Peter S. Tam, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-413 and 50-414

Enclosure: Safety Evaluation

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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