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October 13, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

Section 2.4.4.2 of Supplement 1 to the Catawba Safety Evaluation Report discusses Open Item 2, Performance of the SNSW Pond, using NUREG-0693. As noted therein the Staff's prediction of the maximum Standby Nuclear Service Water (SNSW) pond temperature (98.4°F) exceeded the temperature (96°F) given in FSAR Section 9.2.5.3.1. In order to resolve this issue Duke had previously agreed to requalify any equipment that would be affected by the higher SNSW pond temperature calculated by the Staff.

The design maximum temperature of the SNSW pond and associated pipe in the Nuclear Service Water System has been raised from 95°F to 100°F. This change is reflected in the attached FSAR page which will be included in Revision 8.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

ROS/php

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

NRC Resident Inspector
Catawba Nuclear Station

Palmetto Alliance
2135½ Devine Street
Columbia, South Carolina 29205

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cc: Mr. Robert Guild, Esq.
Attorney-at-Law
P. O. Box 12097
Charleston, South Carolina 29412

Mr. Jesse L. Riley
Carolina Environmental Study Group
854 Henley Place
Charlotte, North C .olina 28207

a. Remove residual and sensible heat from the Reactor Coolant System via the Residual Heat Removal System, during plant shutdown and startup.

b. Cool the letdown flow to the Chemical and Volume Control System during power operation.

c. Cool the spent fuel pool water.

d. Provide cooling to dissipate waste heat from various other primary plant components.

e. Provide cooling to engineered safeguards loads after an accident.

The Component Cooling System serves as an intermediate system and a second boundary between the Reactor Coolant System and the Nuclear Service Water System. This double barrier arrangement reduces the probability of leakage of radioactivity to the environment.

The Component Cooling System design is based on maximum heat sink temperatures (supplied by the Nuclear Service Water System) of 90°F (normal) and 100°F (following a LOCA). During normal operating conditions, the maximum temperature of the component cooling water supplied to the components and reactor coolant pumps is 100°F. During a fast unit shutdown in 14 hours the temperature of the component cooling water will approach 120°F. This will occur during the initiation of residual heat removal at the fourth hour of the shutdown. The temperature of the component cooling water will also exceed 100°F following a LOCA.

Active system components considered vital to the cooling function are redundant. Such redundancy of components prohibits a single failure from preventing safe shutdown in any essential system served by the Component Cooling System. Any single passive failure in this system does not prevent the system from performing its design function due to double isolation valves on every crossover between safety trains.

The design provides means for the detection of radioactivity entering the system from the Reactor Coolant System and its associated auxiliary systems, and includes provision for isolation of system components.

9.2.2.2 System Description

The Component Cooling System normally functions as two independent subsystems. One subsystem for Unit 1 and one subsystem for Unit 2. Unit 1 flow diagrams are shown in Figures 9.2.2-1 through 9.2.2-10. The two units are identical except cooling water supplied to shared equipment is contained in the Unit 1 subsystem. Crossovers are provided between the two subsystems so that cooling water can be supplied to shared equipment from either unit. Such sharing of components does not degrade the performance or reliability of the essential portion of the Component Cooling System, as crossovers and non-essential shared components are isolated on Engineered Safeguards Actuation Signals. The Component Cooling System consists of eight (four per unit) component