DUKE POWER COMPANY
P.O. BOX 33189
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

August 1, 1984

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:

On June 25, 1984, Duke Power Company submitted a number of revised FSAR Chapter 14 test abstracts. Further review of Chapter 14 has identified two additional changes as follows:

1. Table 14.2.12-1 (Page 12), Auxiliary Feedwater System Functional Test - the test acceptance criteria was revised to reflect the flow requirements assumed in the accident analysis. The reference to steam pressure was deleted since the pump was verified to be aligned per the operating procedure which verified adequate steam pressure.

2. Table 14.2.12-2 (Page 7), Rod Control System Alignment Test- References to verification of rod withdrawal interlocks were deleted since they were successfully verified by TP/1/B/1600/05, Rod Control System Functional Test (See FSAR Table 14.2.12-1, page 7).

As shown on the attached pages, these changes will appear in Revision 12 to the FSAR. In accordance with License Condition C(6) of Catawba Unit 1 license (NPF-24), prior NRC approval is required. Approval of the change to the Auxiliary Feedwater System Functional Test is needed prior to entry into Mode 3 which is scheduled for September 5, 1984.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

ROS/slb

Attachment

B001
1/1

8408070263 840801
PDR ADOCK 05000413
P PDR

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

NRC Resident Inspector
Catawba Nuclear Station

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

Palmetto Alliance
2135½ Devine Street
Columbia, South Carolina 29205

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

AUXILIARY FEEDWATER SYSTEM FUNCTIONAL TEST
Abstract

Purpose

To demonstrate the capability of the system to deliver design flows to the steam generators under all anticipated conditions. To demonstrate the operability of essential controls, interlocks, and alarms.

Prerequisites

All support systems are in service to the extent necessary to operate the Auxiliary Feedwater System. The normal and alternate supplies of water are available to the pump suctions. The steam generators are in service to the extent necessary to accept auxiliary feedwater pump discharge. A temporary steam supply may be required for testing of the turbine-driven auxiliary feedwater pump. The steam generators are required to be at hot shutdown temperature and pressure conditions for portions of the test.

Test Method

Each auxiliary feedwater pump is started and run separately to demonstrate flow from the upper surge tank and the auxiliary feedwater condensate storage tank. Pump performance is verified and the existence of adequate suction head from each of the above sources is verified. Auxiliary feedwater supply from the upper surge tank is verified with this source under vacuum at normal operating temperatures.

Verification is performed of the operability of pump runout protection interlocks, automatic reset of the automatic start defeat circuitry at the P-11 permissive setpoint, and proper automatic valve alignment upon receipt of a simulated auxiliary feedwater start signal. The auxiliary feedwater nozzles will be monitored for indications of water hammer while feeding the steam generators during hot functional testing. At least five successive, cold quick starts of the steam driven auxiliary feedwater pump upon receipt of a start signal will be verified. Steam piping to the steam driven auxiliary feedwater pump will be visually monitored during cold starts for indications of water hammer, flashing, excessive vibration, or interference due to thermal expansion.

Acceptance Criteria

1. Each motor driven pump develops a total dynamic head of greater than or equal to 3470 feet at a flow of greater than or equal to 400 gpm.

2. The steam driven pump develops a total dynamic head of greater than or equal to 3550 feet at a flow of greater than or equal to 400 gpm.

3. Motor and steam driven pumps start on receipt of the simulated auxiliary feedwater start signal.

ROD CONTROL SYSTEM ALIGNMENT TEST
Abstract

Purpose

In the cold shutdown condition, to assure proper connection, identification and continuity of Rod Control System power and control cabling. In the hot standby condition, to adjust Rod Control System bank-overlap setpoints and to demonstrate proper system control and indication.

Prerequisites

Initial core loading is complete. The reactor vessel upper internals are installed, the reactor vessel head is installed with the studs tensioned, the full-length rods are latched, and the Reactor Coolant System is filled and vented. The reactor is in the cold shutdown or hot standby condition as dictated by the specific test requirements. Containment integrity is established as required in Technical Specifications. Nuclear Instrumentation and Rod Position Indication Systems are operable.

Test Method

With the reactor in the cold shutdown condition, the connection and identification of each power and control cable are visually checked and the resistance of each measured. With the reactor in the hot standby condition, the Rod Control System is operated in various modes and indications and alarms observed. Bank start and stop positions during insertion, withdrawal and overlap operations are recorded.

Acceptance Criteria

Cable connections and identifications are correct. Bank overlap controls function to sequence withdrawal of banks in accordance with the settings of the controls. Step counter accumulate changes in rod position as rods are moved in and out. Cold resistance values are within the limits specified in the vendor technical manual.