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July 12, 1985

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, Unit 1
Docket No. 50-413

Dear Mr. Denton:

License Condition 3 of Facility Operating License NPF-35 requires that Duke Power Company conduct the post-fuel-loading startup test program as described in Chapter 14 of the FSAR, as amended. This is to advise that the test program is now essentially complete with only minor outstanding items as noted below.

Piping System Vibration Test-Table 14.2.12-1 (Page 37)

Steady state vibration measurements have not been performed on the following:

1. Spent Fuel Cooling System, Train B - Operability of this train will be verified prior to placing spent fuel into the pool.

2. Boron Thermal Regeneration System - The status of this system is discussed below.

3. Boric Acid Transfer Pump 1B and associated piping - This pump was damaged as reported in LER 413/84-01. This portion of the test will be completed after the pump is repaired.

Unit Load Steady State Test-Table 14.2.12-2 (Page 19)

The purpose of this test is to verify that Reactor Coolant System and appropriate secondary system parameters are within specified limits when measured at steady state conditions. At full power, the steam generator steam pressures exceeded the predicted values. This condition was not totally unexpected since the predicted values include some allowance for steam generator fouling. Clean steam generator tubes transfer heat more efficiently which results in the slightly higher steam pressure. The turbine control valves automatically control the steam pressure to the high pressure turbine. The net result is a higher pressure drop across the turbine control valves and therefore a slight decrease in efficiency.

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Steam line pressure is an input to safety injection and steam line isolation functions. However, a slightly higher steam line pressure would have no effect on these functions since actuation is on low steam line pressure. The observed pressure of approximately 1035 psia is well with the system design pressure of 1200 psia.

Secondary Systems Functional Tests

This test was written to complete outstanding items not completed in the Reactor Coolant System Hot Functional Testing program (FSAR 14.2.12-1 Page 3). Specifically, vacuum in the Main Condenser C is less than expected (higher absolute pressure). Efforts are underway to identify/correct the problem. The effect of the condenser vacuum being lower than expected is to reduce the turbine cycle efficiency.

Boron Thermal Regeneration System Functional Test

There is not a specific FSAR Chapter 14 commitment to perform this test. However, this system will be tested prior to use in accordance with the recommendations of Regulatory Guide 1.68, Rev. 2, Appendix A, Section 1.b.2. Major system design changes have been identified to install a recirculation loop to speed up the temperature stabilization times between boration/dilution modes. To minimize personnel exposures for implementation of this change, use of this system will be delayed. Administrative actions have been taken to prohibit the use of this system. This system is non-safety related and is not required for unit operation. When the system changes have been performed, the system will be tested as stated in FSAR Section 3.9.2.1.1 and 9.3.6.6 and Table 14.2.12-1 (Page 37).

Each of the above incomplete startup tests have been reviewed to assess their impact on unit operation. It was concluded that none of these test deficiencies have an adverse impact on the continued safe operation of Catawba Unit 1 and therefore pose no undue risk to the health and safety of the public.

A summary of the Catawba Unit 1 startup and power escalation testing, along with the resolution of the above items, will be provided in the Startup Report and any supplements in accordance with Technical Specification 6.9.1.

Very truly yours,

H. B. Tucker /BB

Hal B. Tucker

ROS:slb

cc: Robert Guild, Esq.
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