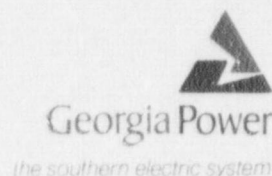


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SL-3312  
0536m  
X7GJ17-V750

October 2, 1987

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
STATUS OF INITIAL STARTUP TEST PROGRAM

Gentlemen:

Georgia Power Company (GPC) has reviewed the status of the remaining tests from the startup test program. In our letter dated September 4, 1987 (SL-3083), GPC provided a brief discussion of these tests and stated generally that they were to be conducted in conjunction with the outage planned for early October. The purpose of this letter is to provide you a more definitive schedule for conducting the tests. Please note also, that upon review with the NSSS vendor, GPC has determined that the objectives for several of the tests have been satisfactorily demonstrated and additional testing is no longer required. Notification of these changes to the Initial Test Program is, therefore, made in accordance with Operating License Condition 2.C.(3).

Should you have any questions in this regard, please contact this office at any time.

Sincerely,

L. T. Gucwa

EMB/lm

Enclosure: Status of Initial Startup Test Program

c: (see next page)

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U. S. Nuclear Regulatory Commission  
October 2, 1987  
Page Two

c: Georgia Power Company

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ENCLOSURE

PLANT VOGTLE - UNIT 1  
NRC DOCKET 50-424  
OPERATING LICENSE NPF-68  
STATUS OF INITIAL STARTUP TEST PROGRAM

Automatic Steam Generator Level Control Test (FSAR 14.2.8.2.25)

The objectives of this test are to verify the stability of the automatic steam generator level control system during simulated transients at various power conditions and to verify the operation of the variable speed feature of the main feedwater pumps.

Testing of the automatic steam generator level control system was conducted during initial low power (1-15 percent) operation. Control system adjustments and tuning of the feedwater regulating valves were accomplished as part of this testing. Steam generator level response was then observed during normal plant operations and during transients such as the 10 percent load swing tests (at the 30 and 75 percent power level test plateaus) and the 50 percent load reduction test (from 75 percent power). Results from these tests demonstrate the stability of the automatic steam generator level control system as well as proper operation of the variable speed feature of the main feedwater pumps.

The automatic steam generator level control test is performed in conjunction with the load swing test and the large load reduction test. Evaluation has shown that these latter tests are no longer necessary in that satisfactory control system response to power transients has been demonstrated (see below). Further testing of the steam generator level control system is not planned.

Load Swing Test (FSAR 14.2.8.2.27)

The objective of this test is to verify proper nuclear plant response, including automatic control systems performance, when step load changes are introduced to the turbine-generator at 30, 75, and 100 percent power levels.

Load swings of -10 and +10 percent were conducted at the 30 and 75 percent power level test plateaus. Satisfactory results were achieved for these tests with the exception that during the +10 percent swing from 65 to 75 percent power an overshoot occurred due to improper setting of the turbine load limiter. Additionally, minor adjustments were made to the automatic steam generator level control system.

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## ENCLOSURE (Continued)

STATUS OF INITIAL STARTUP TEST PROGRAM

Westinghouse has evaluated the need to conduct the load swing tests at the 100 percent power level. They have concluded that such testing is optional due to the satisfactory performance of the plant and the fact that the testing does not exercise or demonstrate any safety function or satisfy any safety related criteria required by Regulatory Guide 1.68. GPC concurs with their assessment and does not plan to conduct the load swing tests at 100 percent power.

Large Load Reduction Test (FSAR 14.2.8.2.52)

The objective of this test is to demonstrate satisfactory plant transient response to 50 percent load reductions, to monitor RCS and secondary plant parameters during the transients, and to optimize controller setpoints, if necessary.

A 50 percent load reduction test was conducted from 75 percent power. The results were unsatisfactory in that a faulty relay card in the rod control system required the operators to manually insert control rods to reduce reactor power. The plant was stabilized, however, and the reactor did not trip. The majority of the test objectives were met. Additionally, system setpoint tuning has been completed which should resolve any remaining problems that existed during the test.

Westinghouse has evaluated the need to conduct the 50 percent load reduction test at the 100 percent power level. They have concluded that the test is optional due to the satisfactory performance of the plant and the fact that the test does not exercise or demonstrate any safety function or satisfy any safety related criteria required by Regulatory Guide 1.68. GPC concurs with their assessment and does not plan to conduct the 50 percent load reduction test at 100 percent power.

Steam Generator Moisture Carryover Test (FSAR 14.2.8.2.54)

The objective of this test is to determine the moisture carryover performance of the steam generators.

This test is currently being reviewed in conjunction with the secondary plant chemistry. The test requires that the polishing system be out of service for approximately 12 hours, which the secondary plant chemistry is unable to support at this time. No specific date has been identified for conduct of the test.

## ENCLOSURE (Continued)

STATUS OF INITIAL STARTUP TEST PROGRAMThermal Expansion Test (FSAR 14.2.8.2.48)

The objectives of the thermal expansion test are (1) to demonstrate that essential Nuclear Steam Supply System (NSSS) and Balance of Plant (BOP) components can expand without obstruction and that the expansion is in accordance with design, (2) to verify during cooldown that the components return to their approximate baseline cold positions, (3) to resolve discrepancies from hot functional testing, and (4) to test modifications made since hot functional testing. Any systems not tested during hot functional testing are tested as part of the thermal expansion test.

Walkdowns of essential components have been conducted at temperature plateaus during plant heatup (ambient, 250°F, 350°F, 450°F, and full temperature plateaus) and at the 30, 50, 75, 90 and 100 percent power levels. Displacement data collected at each plateau was evaluated and found acceptable prior to proceeding to the next plateau. The 100 percent power data has also been evaluated and found acceptable. The remaining action for this test involves the verification during cooldown that the components return to their approximate baseline cold conditions. This will be accomplished following the plant cooldown associated with the upcoming maintenance outage. The planned date for entering Mode 5 (cold shutdown) is October 12, 1987.

Dynamic Response Test (FSAR 14.2.8.2.43)

The objectives of the dynamic response test are (1) to verify during power range testing that the stress analysis of essential NSSS and BOP components under transient conditions are in accordance with design, (2) to resolve discrepancies from hot functional testing, (3) to test modifications made since hot functional testing, and (4) to test systems not tested during hot functional testing.

Numerous measurements and visual inspections were performed to verify component response to steady state and transient loadings. The testing has essentially been completed with the exception of verifying main steam system response to the rapid closure of the turbine stop valves from approximately 100 percent power. This test will be conducted in conjunction with a plant trip from 100 percent power planned for the evening of October 9, 1987. Please note that the objectives of this test are different than the "Plant Trip From 100 Percent Power" test that is described in FSAR Section 14.2.8.2.53.

ENCLOSURE (Continued)

STATUS OF INITIAL STARTUP TEST PROGRAM

Power Ascension Test Sequence (FSAR 14.2.8.2.50)

The power ascension test sequence is a procedure that defines the overall sequence of testing for tests conducted at the various plateaus following the low power physics testing at 0-5 percent power (inclusive of, but not limited to, those tests described in FSAR Section 14.2.8.2). No specific objectives exist for this test sequence. The test sequence remains open pending completion of the power ascension testing.

Plant Performance Test (FSAR 14.2.8.2.55)

The objectives of the plant performance test are to (1) monitor secondary plant systems under loaded conditions during power ascension testing and (2) to make adjustments to the systems as necessary to improve plant efficiency.

The secondary plant systems were observed throughout the power ascension test program. Several problems associated with the calorimetric determination of reactor power and with level control of certain feedwater heaters were identified and resolved. During normal power operation, adjustments will continue to be made to the plant systems to improve plant efficiency. No further testing as part of the power ascension test program is planned, however, and the test procedure is being closed.