GULF STATES UTILITIES COMPANY
POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704
AREA CODE 409 838-6631

June 3, 1986
RBG- 23811
File Nos. G9.5, G9.25.1.5

Mr. Robert D. Martin, Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Dear Mr. Martin:

River Bend Station - Unit 1
Docket No. 50-458

Attached for your information is a report containing a brief description of a change to the River Bend Station (RBS) initial test program (Test Condition 4 - Natural Circulation) and a summary of the safety evaluation for the change. This report is provided with regard to the RBS Facility Operating License NPF-47, Section 2.C(12).

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/ERG/DAS/je

cc: Director of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

86-616

IE31

ATTACHMENT

Summary Description of Change
(Test Condition 4 - Natural Circulation)

Regulatory Guide 1.68 (Revision 2, August 1978), Appendix A, paragraph 5.0 requires that appropriate consideration be given to testing at the extremes of all possible operating modes for facility systems if the facility is intended to be operated in these modes. Test Condition 4 defines the region of the power/flow map at natural circulation near the 100% load line. Testing of core performance and control system response was planned to be performed in this region; however, all testing in Test Condition 4 has been deleted.

Discussion

Operation at natural circulation conditions is not an intended mode of operation for a BWR. Natural circulation conditions can only be reached as the result of an abnormal operational transient (two recirculation pump trip). Current Plant Technical Specifications only allow a very limited amount of time for operation at natural circulation (typically with no reactor coolant system recirculation loops in operation, the operator must immediately initiate measures to place the unit in at least the startup mode within 6 hours and in hot shutdown mode within the next 6 hours). In addition, Service Information Letter 380 (SIL-380, Revision 1, "BWR Core Thermal Hydraulic Stability", from General Electric Company dated February 10, 1984) recommends that with no reactor coolant system recirculation loops in operation the operator should immediately initiate an orderly reduction of thermal power to less than or equal to the 80% load line. Therefore, operation near the 100% load line at natural circulation is not an expected operating condition and testing of core performance and control systems is not required. Extensive special testing at natural circulation has previously been performed at several BWRs covering a wide range of plant and core designs. These tests have thoroughly characterized the performance of the BWR at natural circulation conditions.

Conclusion

Testing of plant systems is performed over a wide range of operating conditions representing the extremes of expected operating modes intended for the plant. These tests meet the objectives of Regulatory Guide 1.68, Appendix A, paragraph 5.0. The proposed test change does not adversely affect any safety system or safe operation of the plant and therefore does not involve an unreviewed safety question. Test Condition 4 testing can therefore be deleted from the Power Ascension Test Program.