GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

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January 16, 1986
RBG- 23,004
File Nos. G9.5, G15.4.1

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 changes to the River Bend Station (RBS) initial test program (ST-05 and ST-27) and a summary of the safety evaluation for each change. This report is provided with regard to the RBS Facility Operating License NPF-47, Section 2.C(12).

Sincerely,

Eddie R Grant
for J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/RJK/je

Attachments

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

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ATTACHMENT 1

January 16, 1986
RBG- 23,004

SUMMARY DESCRIPTION OF CHANGE
(ST-05)

Section 14.2.12.3.5 of the River Bend Station (RBS) Final Safety Analysis Report (FSAR) describes initial testing of the control rod drive (CRD) system. This revision provides justification for measuring the CRD scram timing with accumulators having a charging water header pressure greater than or equal to 1520 psig instead of a charging water header pressure of 1750 psig.

SUMMARY OF SAFETY EVALUATION

DISCUSSION

The objectives of the CRD system test are a) to demonstrate that the CRD system operates properly over the full range of primary coolant temperatures and pressures from ambient to operating and b) to determine the initial operating characteristics of the entire CRD system. A charging water header pressure of 1520 psig for accumulators is the minimum requirements in the Technical Specifications. The Technical Specifications also contain the same scram timing criteria as stated in ST-05.

CONCLUSION

This revision does not alter the safe operation of the plant or involve an unreviewed safety question. Therefore, this revision can be implemented.

ATTACHMENT 2

January 16, 1986
RBG- 23,004

SUMMARY DESCRIPTION OF CHANGE
(ST-27)

Section 14.2.12.3.24 of the River Bend Station (RBS) Final Safety Analysis Report (FSAR) describes initial testing of the turbine trip and generator load rejection protective functions. This revision provides justification for 1) evaluating the turbine trip (TT) transient event during test condition (TC)-6 (generator load rejection (GLR) test) rather than performing the TT at TC-3 and 2) moving the GLR within the bypass system capacity at TC-1 to a TT.

SUMMARY OF SAFETY EVALUATION

DISCUSSION

The objective of ST-27 is to demonstrate the response of the reactor and its control systems to protective trips in the turbine and generator. The TT at 60-80% power level was to be performed at TC-3. The turbine trip at TC-3 will not be performed but will be evaluated during the GLR at TC-6.

A review of startup test results from previous BWR/6 plants have shown that a turbine trip at 75% power is a mild transient event. The core and reactor system responses to GLR at TC-6 is similar to TT at TC-3. The transient analysis shows GLR to be slightly more limiting than TT because the turbine control valves close slightly faster (GLR) than the turbine stop valves (TT) as a result of a protective trip in the turbine and generator. The trip is initiated by creating an electrical signal condition indicating a generator trip is required. The turbine generator overspeed response is monitored during the test. The GLR is performed at full rated power.

The GLR at TC-1 will be replace by a TT. The GLR at TC-1 is performed at low power level such that steam generation is just within the bypass valve capacity to demonstrate scram avoidance. Subsequent to a turbine/generator trip at this operating point, the bypass valves are expected to release all the steam to the condenser and the reactor system is expected to reach steady state after a few seconds. The disturbance due to a GLR or TT is similar and small at TC-1. Therefore, replacing the GLR at TC-1 with a TT will provide data on the bypass system response to a TT. This change will not produce significant changes in the test results and conclusions had the test not been modified. The power level has no effect on the bypass system performance during a turbine trip. The reactor protection system, scram on turbine stop valve closure and recirculation pump trip on a TT signal, have been checked during the preoperational tests. Therefore,

their proper function is assured. The relief valve setpoints will be checked at TC-6 load rejection and isolation test. The integrated responses of the protection system for TT will be demonstrated at modified TC-1 and TC-6.

To maintain the proper water level control for long term system operation after the transient is regulated by its control system, the feedwater/level control system will be tuned in ST-23 "Feedwater System". The level setpoint setdown for Level 8 trip avoidance will be checked in the GLR. The proper water level control will avoid the unnecessary total recirculation pump trip (RPT), high pressure core spray (HPCS), and Reactor Core Injection Coolant (RCIC) trips at Level 2 and Main Steam Isolation Valve (MSIV) closure on low turbine inlet pressure will be avoided by proper turbine pressure control performance. The trip avoidance for Level 8 and Level 2 has been demonstrated in test results from other plants.

CONCLUSION

These revisions do not alter the safe operation of the plant or involve an unreviewed safety question. Therefore, these revisions can be implemented.