

May 10, 1988

Docket No. 50-458

Mr. James C. Deddens  
Senior Vice President, (RBNG)  
Gulf States Utilities  
P. O. Box 220  
St. Francisville, LA 70775  
ATTN: Nuclear Licensing

Dear Mr. Deddens:

SUBJECT: RIVER BEND STATION, UNIT 1 - AMENDMENT NO. 23 TO FACILITY  
OPERATING LICENSE NO. NPF-47 (TAC NO. 66173)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 23 to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated September 4, 1987.

The amendment revises Table 4.3.6-1 of the TSs to (1) delete the daily channel functional test of the rod pattern control system low power setpoint and high power setpoint, and (2) clarify that the surveillance for the high power setpoint is applicable to Operational Condition 1, greater than the low power setpoint.

A copy of our Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Walter A. Paulson, Project Manager  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 23 to License No. NPF-47
2. Safety Evaluation

cc w/enclosures:

See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

GULF STATES UTILITIES COMPANY

DOCKET NO. 50-458

RIVER BEND STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23  
License No. NPF-47

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Gulf States Utilities Company (the licensee) dated September 4, 1987, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-47 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 23 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. GSU shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*Jose A. Calvo*

Jose A. Calvo, Director  
Project Directorate - IV  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 10, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 23

FACILITY OPERATING LICENSE NO. NPF-47

DOCKET NO. 50-458

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contains vertical lines indicating the areas of charge.

REMOVE PAGES

3/4 3-63  
3/4 3-64

INSERT PAGES

3/4 3-63  
3/4 3-64

TABLE 4.3.6-1

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u> <sup>(a)</sup>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>ROD PATTERN CONTROL SYSTEM</u>				
a. Low Power Setpoint	S <sup>(f)</sup>	S/U <sup>(b)(e)</sup> M <sup>(e)</sup>	SA <sup>#</sup>	1, 2
b. High Power Setpoint	S <sup>(f)</sup>	S/U <sup>(b)(e)</sup> M <sup>(e)</sup>	SA <sup>#</sup>	1**
2. <u>APRM</u>				
a. Flow Biased Neutron Flux - Upscale	NA	S/U <sup>(b)</sup> , M	SA <sup>(g)</sup>	1
b. Inoperative	NA	S/U <sup>(b)</sup> , M	NA	1, 2, 5
c. Downscale	NA	S/U <sup>(b)</sup> , M	SA	1
d. Neutron Flux - Upscale, Startup	NA	S/U <sup>(b)</sup> , M	SA	2, 5
3. <u>SOURCE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U <sup>(b)</sup> , W	NA	2, 5
b. Upscale	NA	S/U <sup>(b)</sup> , W	SA	2, 5
c. Inoperative	NA	S/U <sup>(b)</sup> , W	NA	2, 5
d. Downscale	NA	S/U <sup>(b)</sup> , W	SA	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U <sup>(b)</sup> , W	NA	2, 5
b. Upscale	NA	S/U <sup>(b)</sup> , W	SA	2, 5
c. Inoperative	NA	S/U <sup>(b)</sup> , W	NA	2, 5
d. Downscale	NA	S/U <sup>(b)</sup> , W	SA	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u>				
a. Water Level-High	NA	M	R <sup>#</sup>	1, 2, 5*
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>				
a. Upscale	NA	S/U <sup>(b)</sup> , M	SA <sup>(g)</sup>	1

TABLE 4.3.6-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION SURVEILLANCE REQUIREMENTS

NOTES:

- a. Neutron detectors may be excluded from CHANNEL CALIBRATION.
- b. Within 24 hours prior to startup, if not performed within the previous 7 days.
- c. [DELETED]
- d. [DELETED]
- e. Includes reactor manual control multiplexing system input.
- f. Verify the Turbine Bypass valves are closed when THERMAL POWER is greater than 20% RATED THERMAL POWER.
- g. The CHANNEL CALIBRATION shall exclude the flow reference transmitters; these transmitters shall be calibrated at least once per 18 months.
- \* With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- # Calibrate trip unit setpoint once per 31 days.
- \*\* With THERMAL POWER greater than low power setpoint.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE NO. NPF-47

GULF STATES UTILITIES COMPANY

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

1.0 INTRODUCTION

By letter dated September 4, 1987, Gulf States Utilities Company (GSU) (the licensee) requested an amendment to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1. The proposed amendment would modify Table 4.3.6-1 of the Technical Specifications (TSs) to delete the requirement to perform the daily Channel Functional Test on the Rod Pattern Control System, Low Power Setpoint (LPSP) and High Power Setpoint (HPSP). Channel Functional Tests would continue to be required prior to startup and monthly thereafter. The purpose of these surveillance requirements is to demonstrate the operability of the LPSP and the HPSP. The proposed amendment would also modify the TSs to clarify that the Surveillance for the HPSP is applicable to Operational Condition 1, greater than the LPSP.

The licensee bases the proposed deletion of the daily Channel Functional Test on demonstrated reliability of the trip units and the adequacy of the surveillance performed prior to startup and monthly to demonstrate operability. The licensee has indicated that these proposed changes would significantly reduce the manpower associated with the performance of the surveillance and will provide operational consistency, flexibility, and clarity of surveillance requirements while meeting the intent of the surveillance.

2.0 EVALUATION

The purpose of the LPSP is to initiate rod pattern control system (RPCS) interlocks on decreasing power and rod withdrawal limiter interlocks on increasing power. The purpose of the RPCS is to minimize the consequences of a postulated control rod drop accident to an acceptable level by restricting the pattern of control rods that can be established to predetermined sets. Above 20% rated thermal power (the low power setpoint), analysis shows that the need to minimize the consequences of a postulated control rod drop accident is no longer a concern and the RPCS does not place any pattern restrictions on control rod movement above the LPSP. From the LPSP on up in power, rod withdrawals are restricted to prevent excessive change in the event of erroneous rod withdrawal from locations of high power density. From the LPSP to the HPSP (70% rated thermal power), rod motion is limited to 4 notches (2 feet) and from HPSP on up in power, rod motion is limited to 2 notches (1 foot).

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The current River Bend Station (RBS) TSs presently require the channel functional test to be performed prior to startup, daily or prior to control rod movement, daily as power is increased above LPSP or decreased below LPSP, and once per 31 days while operation continues above the LPSP. The licensee's September 4, 1987 letter requesting deletion of the daily channel functional test provides the following information in support of the proposed TS change.

1. These functional tests are performed on Rosemount trip units identical to trip units located throughout the plant which receive channel functional tests monthly per their applicable Technical Specification Surveillance Requirements. These trip units are subjected to a 30 fold increase in surveillance test intervals as compared to identical trip units in, for instance, the Reactor Protection System (Technical Specification 3/4.3.1) without an identified corresponding increase in reliability.
2. At RBS there are approximately 135 Surveillance Test Procedures (STPs) which perform channel functional tests on Rosemount trip units. Of these, only the LPSP and HPSP STPs require a channel functional test on a frequency less than once every 31 days. Since RBS has been performing this daily surveillance, there have been no failures of this STP related to these trip units. Additionally, a review of the National Plant Reliability Data System data base revealed no reported failures that could have been detected by this required daily Channel Functional Test. Therefore, it is concluded that the channel functional tests prior to startup and monthly thereafter will adequately ensure the reliability of this system.
3. The requirement to perform the HPSP surveillance when decreasing power below the LPSP serves no purpose. Since the HPSP is not required to be OPERABLE until greater than 70% rated thermal power, it is appropriate to change the HPSP applicability to Operational Condition 1, greater than the LPSP.

Because of the good experience with the Rosemount trip units during the first cycle of operations (completed September 14, 1987) as described in the licensee's application, it is the staff's judgement that channel functional tests prior to startup and monthly thereafter will provide adequate assurance of the reliability and operability of this system. The staff concludes that the TS change is acceptable. In addition, because the HPSP is not required to be operable until greater than 70% rated thermal power, the staff concludes that the proposed change of HPSP Surveillance applicability to Operational Condition 1, greater than the LPSP, is acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and/or changes to the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no

significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposures.

The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 10, 1988

Principal Contributor: W. Paulson