

March 28, 1987

Docket No. 50-458

DISTRIBUTION

Mr. James C. Deddens
Senior Vice President, (RBNG)
Gulf States Utilities
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ATTN: Nuclear Licensing

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Dear Mr. Deddens:

SUBJECT: CHANGES TO THE TECHNICAL SPECIFICATIONS REGARDING AVERAGE POWER RANGE MONITOR AND REACTOR COOLANT SYSTEM RECIRCULATION FLOW

RE: RIVER BEND STATION, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 3 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 August 29, 1986, as supplemented on February 19, 1987.

This amendment changes the Technical Specifications requirements to perform channel calibrations of the recirculation flow transmitters for two functions of the Average Power Range Monitor (APRM) and one function of the Reactor Coolant System Recirculation Flow from once per six months to once per 18 months.

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

Sincerely,

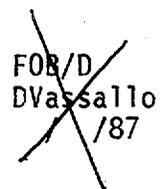
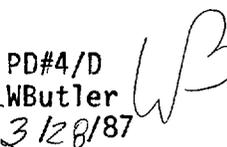
Original Signed by

Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosures:

- Amendment No. 3 to License No. NPF-47
- Safety Evaluation

cc: w/enclosures
See next page

 MO'Brien 3/25/87	 PD#4/PM SStern:lb 3/19/87	 FOB/D DVassallo /87	 OGC WButler 3/24/87	 PD#4/D WButler 3/28/87
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 28, 1987

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

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RANGE MONITOR AND REACTOR COOLANT SYSTEM RECIRCULATION FLOW

RE: RIVER BEND STATION, UNIT 1

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

Sincerely,

A handwritten signature in cursive script that reads "Walter R. Butler".

Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosures:

1. Amendment No. 3
to License No. NPF-47
2. Safety Evaluation

cc: w/enclosures
See next page

Mr. James C. Deddens
Gulf States Utilities Company

River Bend Nuclear Plant

cc:

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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. 3
License No. NPF-47

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by Gulf States Utilities Company, dated August 29, 1986 as supplemented on February 19, 1987 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the 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 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.
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. 3 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.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 28, 1987

PD#4/PM
M. Brien
3/25/87

PD#4/PM
SStern:1b
3/9/87

OGC
M. Gorman
1/187
324

PD#4/D
Butler
3/28/87

WB

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

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 28, 1987

ATTACHMENT TO LICENSE AMENDMENT NO. 3

FACILITY OPERATING LICENSE NO. JFF-47

DOCKET NO. 50-458

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change. Overleaf page provided to maintain document completeness.*

REMOVE

3/4 3-7

3/4 3-8

3/4 3-9

3/4 3-10

3/4 3-63

3/4 3-64

INSERT

3/4 3-7

3/4 3-8*

3/4 3-9

3/4 3-10*

3/4 3-63

3/4 3-64

TABLE 4.3.1.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION^(a)</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Intermediate Range Monitors:				
a. Neutron Flux - High	S/U,S,(b) S	S/U ^(c) , W W	R R	2 3, 4, 5
b. Inoperative	NA	W	NA	2, 3, 4, 5
2. Average Power Range Monitor: ^(f)				
a. Neutron Flux - High, Setdown	S/U,S,(b) S	S/U ^(c) , W W	SA SA	2 3, 4, 5
b. Flow Biased Simulated Thermal Power - High	S,D ^(h)	S/U ^(c) , W	W ^{(d)(e)} , SA ^(o) , R ⁽ⁱ⁾	1
c. Neutron Flux - High	S	S/U ^(c) , W	W ^(d) , SA	1
d. Inoperative	NA	W	NA	1, 2, 3, 4, 5
3. Reactor Vessel Steam Dome Pressure - High	S	M	R ^(g)	1, 2 ^(j)
4. Reactor Vessel Water Level - Low, Level 3	S	M	R ^(g)	1, 2
5. Reactor Vessel Water Level - High, Level 8	S	M	R ^(g)	1
6. Main Steam Line Isolation Valve - Closure	NA	M	R	1
7. Main Steam Line Radiation - High	S	M	R	1, 2 ^(j)
8. Drywell Pressure - High	S	M	R ^(g)	1, 2 ^(l)

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
9. Scram Discharge Volume Water Level - High				
a. Level Transmitter	S	M	R(g)	1, 2, 5 ^(k)
b. Float Switch	NA	Q	R	1, 2, 5 ^(k)
10. Turbine Stop Valve - Closure	S ^(m)	M ⁽ⁿ⁾	R(g)(n)	1
11. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	S ^(m)	M ⁽ⁿ⁾	R(g)(n)	1
12. Reactor Mode Switch Shutdown Position	NA	R	NA	1, 2, 3, 4, 5
13. Manual Scram	NA	M	NA	1, 2, 3, 4, 5

- (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (b) The IRM and SRM channels shall be determined to overlap for at least 1/2 decade during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 1/2 decade during each controlled shutdown, if not performed within the previous 7 days.
- (c) Within 24 hours prior to startup, if not performed within the previous 7 days.
- (d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER >25% of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER. Any APRM channel gain adjustment made in compliance with Specification 3.2.2 shall not be included in determining the absolute difference.
- (e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

- (f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH) using the TIP system.
- (g) Calibrate Rosemount trip unit setpoint at least once per 31 days.
- (h) Verify measured drive flow to be less than or equal to established drive flow at the existing flow control valve position.
- (i) This calibration shall consist of verifying the simulated thermal power time constant to be less than 6.6 seconds.
- (j) This function is not required to be OPERABLE when the reactor pressure vessel head is removed per Specification 3.10.1.
- (k) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.
- (l) This function is not required to be OPERABLE when DRYWELL INTEGRITY is not required per Specification 3.10.1.
- (m) Verify the Turbine Bypass Valves are closed when THERMAL POWER is greater than or equal to 40% RATED THERMAL POWER.
- (n) The CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION shall include the turbine first stage pressure instruments.
- (o) The CHANNEL CALIBRATION shall exclude the flow reference transmitters; these transmitters shall be calibrated at least once per 18 months.

INSTRUMENTATION

3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2 The isolation actuation instrumentation channels shown in Table 3.3.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2 and with ISOLATION SYSTEM RESPONSE TIME as shown in Table 3.3.2-3.

APPLICABILITY: As shown in Table 3.3.2-1.

ACTION:

- a. With an isolation actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channel(s) and/or that trip system in the tripped condition* within one hour. The provisions of Specification 3.0.4 are not applicable.
- c. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system** in the tripped condition within one hour and take the ACTION required by Table 3.3.2-1.

*An inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

**The trip system need not be placed in the tripped condition if this would cause the Trip Function to occur. When a trip system can be placed in the tripped condition without causing the Trip Function to occur, place the trip system with the most inoperable channels in the tripped condition; if both systems have the same number of inoperable channels, place either trip system in the tripped condition.

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> ^(a)	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>ROD PATTERN CONTROL SYSTEM</u>				
a. Low Power Setpoint	S ^(f)	S/U ^{(b)(e)} D ^(c) , M ^{(d)(e)}	SA [#]	1, 2
b. High Power Setpoint	S ^(f)	S/U ^{(b)(e)} D ^(c) , M ^{(d)(e)}	SA [#]	1
2. <u>APRM</u>				
a. Flow Biased Neutron Flux - Upscale	NA	S/U ^(b) , M	SA ^(g)	1
b. Inoperative	NA	S/U ^(b) , M	NA	1, 2, 5
c. Downscale	NA	S/U ^(b) , M	SA	1
d. Neutron Flux - Upscale, Startup	NA	S/U ^(b) , M	SA	2, 5
3. <u>SOURCE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U ^(b) , W	NA	2, 5
b. Upscale	NA	S/U ^(b) , W	SA	2, 5
c. Inoperative	NA	S/U ^(b) , W	NA	2, 5
d. Downscale	NA	S/U ^(b) , W	SA	2, 5
4. <u>INTERMEDIATE RANGE MONITORS</u>				
a. Detector not full in	NA	S/U ^(b) , W	NA	2, 5
b. Upscale	NA	S/U ^(b) , W	SA	2, 5
c. Inoperative	NA	S/U ^(b) , W	NA	2, 5
d. Downscale	NA	S/U ^(b) , W	SA	2, 5
5. <u>SCRAM DISCHARGE VOLUME</u>				
a. Water Level-High	NA	M	R [#]	1, 2, 5*
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>				
a. Upscale	NA	S/U ^(b) , M	SA ^(g)	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. Within one hour prior to control rod movement, unless performed within the previous 24 hours, and as each power range above the RPCS low power setpoint is entered for the first time during any 24 hour period during power increase or decrease.
- d. At least once per 31 days while operation continues within a given power range above the RPCS low power setpoint.
- 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 3 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 August 29, 1986 as supplemented on February 19, 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 require the Average Power Range Monitor (APRM) Flow Bias Simulated Thermal Power - High, APRM Flow Biased Neutron Flux-Upscale and Reactor Coolant System Recirculation Flow-Upscale flow reference transmitters to be calibrated on an 18-month basis.

2.0 EVALUATION

River Bend Unit 1 Technical Specification 3.3.1, Table 4.3.1.1-1, Item 2.b, "Average Power Range Monitor (APRM) Flow Biased Simulated Thermal Power-High;" Technical Specification 3.3.6, Table 4.3.6-1, Item 2.a, "APRM Flow Biased Neutron Flux-Upscale;" and Item 6.a, "Reactor Coolant System Recirculation Flow-Upscale," presently have requirements to perform a channel calibration of these functions at least semi-annually. The proposed changes would require the flow reference transmitters for these three (3) functions to be calibrated on an 18-month basis.

The proposed changes to the Technical Specifications will not revise the Trip Setpoint or Allowable Values stated in Technical Specifications 3.3.1 and 3.3.6. The change will only extend the surveillance interval of the flow reference transmitters. An 18-month calibration cycle for the flow reference transmitters has been calculated to be within the drift allowance utilized in the determination of the setpoints.

The flow reference transmitters are Rosemount 1152 type. Based upon the methods outlined in the licensee's February 19, 1987 letter, the instrument drift is 2.2% for 18 months. The 2.2% calculated drift is lower than the allowed 3% instrument drift utilized for determination of the current Technical Specification setpoints. Therefore, the calculated drift for these instruments with an 18-month surveillance frequency is within the allowed drift used to develop the current setpoints.

The transmitters are also used at the Perry Nuclear Power Plant for the same application and have been approved for an 18-month calibration frequency.

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Based on the above, the staff concludes that the proposed changes to the River Bend Station Unit 1 Technical Specifications are consistent with the SRP Section 7.2 acceptance criteria and are, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and 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 exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this 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 this amendment will not be inimical to the common defense and the security nor to the health and safety of the public.

Principal Contributor: B. Marcus
S. Stern

Dated: March 28, 1987