

May 30, 1986

Docket No. 50-458

DISTRIBUTION

Mr. William J. Cahill, Jr.
Senior Vice President
River Bend Nuclear Group
Gulf States Utilities Company
Post Office Box 2951
Beaumont, Texas 77704
ATTN: Mr. J. E. Booker

Docket File
NRC PDR
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BGrimes
JPartlow
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DVassallo
ACRS (10)
EButcher

Dear Mr. Cahill:

SUBJECT: INCREASING TRIP SET POINT AND ALLOWABLE VALUE FOR ISOLATION ACTUATION

RE: RIVER BEND STATION, UNIT 1

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 1 to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1. The amendment is in response to your letter dated May 15, 1986 and supplemented with additional information in a telephone call with Mr. Grant of your staff on May 16, 1986. Facility Operating License NPF-47 is amended by increasing the trip set point and allowable value for the isolation actuation prescribed for the Main Steam Line Turbine Shield Wall in Item 2.h.3 of Table 3.3.2-2 of the Technical Specifications from 102°F and 106°F to 108°F and 111.3°F, respectively.

This amendment was authorized by telephone on May 16, 1986 and confirmed by letter on May 16, 1986.

The formal license amendment and our completed safety evaluation for this change to the Technical Specifications for River Bend Station, Unit 1 are enclosed.

Sincerely,

Original signed by

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

Enclosures:

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

cc: w/enclosures
See next page

PD#4/LA
MO'Brien:em
05/27/86

PD#4/PM
SStern
05/23/86

FOB/D
DVassallo
05/28/86

OELD
05/29/86

PD#4/D
WButler
05/30/86

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PDR

3. This license amendment became effective May 16, 1986.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 30, 1986

PD#4/LA
MO' *WLB* en:em
05/27/86

*with typewritten
to be changed*
PD#4/PM
SStern
05/23/86

OELD
WLB
05/27/86

PD#4/D
WButler
05/30/86



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

May 30, 1986

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Senior Vice President
River Bend Nuclear Group
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Sincerely,

A handwritten signature in cursive script, reading "Walter R. Butler".

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

Enclosures:

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

cc: w/enclosures
See next page

Mr. William J. Cahill, Jr.
Gulf States Utilities Company

River Bend Nuclear Plant

cc:

Troy B. Conner, Jr., Esq.
Conner and Wetterhahn
1747 Pennsylvania Avenue, NW
Washington, D.C. 20006

Ms. Linda B. Watkins/Mr. Steven Irving
Attorney at Law
355 Napoleon Street
Baton Rouge, Louisiana 70802

Mr. William J. Reed, Jr.
Director - Nuclear Licensing
Gulf States Utilities Company
P. O. Box 2951
Beaumont, Texas 77704

Mr. David Zaloudek
Nuclear Energy Division
Louisiana Department of
Environmental Quality
P. O. Box 14690
Baton Rouge, Louisiana 70898

Richard M. Troy, Jr., Esq.
Assistant Attorney General in Charge
State of Louisiana Department of Justice
234 Loyola Avenue
New Orleans, Louisiana 70112

Mr. J. David McNeill, III
William G. Davis, Esq.
Department of Justice
Attorney General's Office
7434 Perkins Road
Baton Rouge, Louisiana 70808

Resident Inspector
P. O. Box 1051
St. Francisville, Louisiana 70775

H. Anne Plettinger
3456 Villa Rose Drive
Baton Rouge, Louisiana 70806

Gretchen R. Rothschild
Louisianians for Safe Energy, Inc.
1659 Glenmore Avenue
Baton Rouge, Louisiana 70775

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
Office of Executive Director
for Operations
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011



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. 1
License No. NPF-47

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:
 - A. The application for amendment filed by Gulf States Utilities Company, dated May 15, 1986 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. 1 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. This license amendment became effective May 16, 1986.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Walter R. Butler".

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 30, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 1
FACILITY OPERATING LICENSE NO. NPF-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 3-19
3/4 3-20

INSERT

3/4 3-19*
3/4 3-20

TABLE 3.3.2-2
ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1. <u>PRIMARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level - Low Low, Level 2	≥ -43 inches*	≥ -47 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c. Containment Purge Isolation Radiation - High	≤ 1.3 R/hr	≤ 1.57 R/hr
2. <u>MAIN STEAM LINE ISOLATION</u>		
a. Reactor Vessel Water Level - Low Low Low, Level 1	≥ -143 inches*	≥ -147 inches
b. Main Steam Line Radiation - High	$\leq 3.0 \times$ full power background	$\leq 3.6 \times$ full power background
c. Main Steam Line Pressure - Low	≥ 849 psig	≥ 837 psig
d. Main Steam Line Flow - High	$\leq 173^{**}$ psid	$\leq 178^{**}$ psid
e. Condenser Vacuum - Low	≥ 8.5 inches Hg. vacuum	≥ 7.6 inches Hg. vacuum
f. Main Steam Line Tunnel Temperature - High	$\leq 135^{\circ}\text{F}$	$\leq 142.5^{\circ}\text{F}$
g. Main Steam Line Tunnel Δ Temperature - High	$\leq 51^{\circ}\text{F}$	$\leq 55^{\circ}\text{F}$

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
2. <u>MAIN STEAM LINE ISOLATION (Cont'd)</u>		
h. Main Steam Line Area Temperature - High (Turbine Building)		
1. Main Steam Tunnel Area (El. 95')	< 142°F	< 145.3°F
2. Main Steam Tunnel Area (El. 114')	< 142°F	< 145.3°F
3. Main Steam Line Turbine Shield Wall	< 108°F	< 111.3°F
4. MSL Moisture Separator and Reheater Area	< 126°F	< 130°F
3. <u>SECONDARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level - Low Low Level 2	≥ - 43 inches*	≥ - 47 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c. Fuel Building Ventilation Exhaust Radiation - High		
1RMS*RE5A	≤ 1.82 x 10 ³ μCi/sec	≤ 2.18 x 10 ³ μCi/sec
1RMS*RE5B	≤ 5.88 x 10 ⁻⁴ μCi/cc	≤ 7.05 x 10 ⁻⁴ μCi/cc
d. Reactor Building Annulus Ventilation Exhaust Radiation - High	≤ 4.32 x 10 ⁻⁵ μCi/cc	≤ 5.19 x 10 ⁻⁵ μCi/cc
4. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u>		
a. Δ Flow - High	≤ 55 gpm	≤ 62.1 gpm
b. Δ Flow Timer	≤ 45 seconds	≤ 47 seconds
c. Equipment Area Temperature - High		
1. Heat Exchanger Room	< 98.5°F	< 101.5°F
2. Pump Rooms A & B	< 165°F	< 169.5°F
3. Valve Nest Room	< 110°F	< 114.5°F
4. Demineralizer Rooms 1 and 2	< 110°F	< 114.5°F
5. Receiving Tank Room	< 110°F	< 114.5°F



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 1 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 No: RBG-23720 dated May 15, 1986, Gulf States Utilities Company (GSU, the licensee) requested revisions to the technical specifications. Additional information and clarification were given by the licensee in a tele-conference on May 16, 1986. Technical Specification 3.3.2, Table 3.3.2-2, Item 2.h.3 identifies the Main Steam (MS) Line Area Temperature-High (Turbine Building) Technical Specification trip setpoint and allowable value for the Main Steam Line Turbine Shield Wall as & 102°F and & 106°F, respectively. This change request modifies the isolation setpoint and allowable value.

River Bend Station has recently (May 7, 1986) reached the 100% power testing plateau. Ambient temperatures at River Bend have also reached summertime levels. The combination of high ambient temperatures and operation at higher power levels has resulted in temperatures in the steam tunnel areas being higher than the expected operating temperatures upon which the Technical Specifications were based. The licensee has stated that periodic visual surveillances in these areas indicate no steam leaks currently exist at River Bend Station (RBS). At the turbine shield wall, the normal operating temperature is very close to the current trip setpoint and is in danger of initiating main steam line isolations. If isolation of the main steam line occurs, a reactor scram would also be initiated, followed by a plant shutdown. Therefore, GSU is requesting that the trip setpoint and allowable value identified above be revised to & 108°F and & 111.3°F, respectively.

2.0 EVALUATION

The main steam line ambient temperature monitoring system consists of four redundant channels, each with one area temperature monitor, serving the main steam line tunnel, and four redundant channels (each with four area temperature monitors) serving the main steam line area of the turbine building. The turbine shield wall temperature monitors are part of this system. In addition, four redundant differential temperature channels

monitor the outlet and inlet ventilation air ducts of the main steam line tunnel. Each main steam isolation trip logic is actuated by high ambient temperature in the main steam tunnel or the turbine building or by high differential temperature in the tunnel inlet/outlet ventilation air. Trip signals initiate closure of all main steam isolation valves and main steam line drain valves. The automatic closure of valves prevents excessive loss of reactor coolant and release of a significant amount of radioactive material from the Reactor Coolant Pressure Boundary.

In the tele-conference of May 16, 1986, the licensee indicated that an analysis had been performed to establish the trip setpoint and allowable value for the shield wall monitor. It was calculated that a 25 gpm break for a period of one hour will raise the turbine shield wall area temperature to 114°F. A trip setpoint of 108°F and an allowable value of 111.3°F were selected to account for instrument drift and safety margin. We have compared the licensee's statements with the main steam line break analysis results discussed in SER section 15.6.4. The staff's SER for the main steam line break assumes a release of 140,000 pounds of primary coolant for the purpose of dose calculations for the limiting case. No credit is taken for the turbine shield wall temperature monitor for large break events. The large break results are therefore unaffected by the licensee's proposed change. Small break releases will be bounded by the large break analyses since the 140,000 pounds release assumed for the worst case far exceeds a 25 gpm leak of 1 hour duration. Therefore, the staff concludes that the licensee's proposed change is acceptable.

3.0 EMERGENCY CIRCUMSTANCES

During the low power testing program, the licensee made hardware changes in the turbine building area to improve ventilation, insulate pipes which might be contributing to the heat load, moving sensors away from dead air spaces and possible radiant heat sources. The licensee has stated in his letter of May 15, 1986, that these changes were made in attempt to prevent the need for Technical Specification changes.

Furthermore, the licensee states in his letter of May 15, 1986, that turbine area temperatures continued to rise as the reactor power level increased and ambient temperatures in Louisiana were consistently near and over 90°F. On May 8, 1986, the licensee claims the trip setpoint was reached. Despite continued efforts to control these temperatures, the licensee states, they are continuing to operate within three (3) degrees of the setpoint.

The staff finds that a delay in changing this temperature sensor setpoint and allowable value would likely result in subjecting the reactor to continued scrams during periods of high ambient temperatures at River Bend Station, Unit 1. Continued scrams would present unnecessary challenges to the reactor safety systems as well as delaying the completion of the startup test program. The staff therefore finds granting this amendment to the Technical Specifications on an emergency basis to be acceptable.

4.0 NO SIGNIFICANT HAZARDS CONSIDERATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if the operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The staff evaluation in Section 2.0 of this SE and Section 15.6.4 of the original SER states that the large steam line breaks, involving release of 140,000 pounds of primary coolant is the bounding case for the steam line accident analysis. However, the staff concluded in Section 2.0 of this SE that the licensee's proposed revision of the set point and allowable value for the turbine shield wall temperature sensor would not impact the large steam line break analysis. In addition, the staff concludes there is no change in the design or performance of plant systems or components from those originally reviewed in the FSAR. Therefore the staff concludes that operation of the facility in the proposed manner would not involve a significant increase in the probability or consequences of an accident previously evaluated, would not create the possibility of a new or different kind of accident from any accident previously evaluated, and would not involve a significant reduction in a margin of safety.

Accordingly, the staff concludes the amendment involves no significant hazards consideration.

5.0 STATE CONSULTATIONS

In accordance with the Commission's regulations, consultation was held with officials of the State of Louisiana by telephone. The Administrator, Nuclear Energy Division, Office of Air Quality and Nuclear Energy, Department of Environmental Quality of the State of Louisiana had no objections to the proposed action.

6.0 PUBLIC COMMENTS

A. Plettinger, an interested citizen of Baton Rouge, LA, raised the question of degree of scrutiny which GSU had exercised in its earlier certification of the River Bend Technical Specifications. Furthermore, Ms. Plettinger stated that the NRC should check GSU's calculations on anticipated temperatures, not just rely on GSU's assurances.

Ms. Plettinger raises two issues: the degree of scrutiny exercised by the licensee in its earlier certification of the Technical Specifications and the staff relying on the licensee's calculations.

With respect to the degree of scrutiny exercised by the licensee, the staff does not believe that an emergency request to change two values out of thousands implies a lack of scrutiny by the licensee.

With respect to the staff checking the licensee's calculations, the licensee has informed the staff that these calculations are in an auditable form in the possession of the licensee. As a matter of practice, the staff must prioritize its allocation of resources and focus its reviews on those matters of greater safety significance or where in the staff's judgment review is warranted.

7.0 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. 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 made a final no significant hazards consideration finding with respect to this amendment. 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 or environmental assessment need be prepared in connection with the issuance of this amendment.

8.0 CONCLUSION

The staff has concluded, based on the considerations discussed above that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) increase the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, the amendment does not involve significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) 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 the security or to the health and safety of the public.

Principal Contributors: G. Thomas
S. Stern

Dated: May 30, 1986