June 29, 1988

Docket No. 50-458

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Gulf States Utilities
ATTN: Mr. James C. Deddens
Senior Vice President (RBNG)
Post Office Box 220
St. Francisville, LA 70775

Dear Mr. Deddens:

SUBJECT: RIVER BEND STATION, UNIT 1, AMENDMENT NO. 25 TO FACILITY OPERATING LICENSE NO. NPF-47 (TAC NO. 65613)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 25 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 Attachments 1 and 2 of your application dated June 5, 1987, as modified by your letter dated May 13, 1988. The NRC staff evaluation of Attachment 3 of your application was issued on June 3, 1988 in support of Amendment No. 24 to the operating license.

The amendment increases (1) the allowable drywell temperature from 140°F to 145°F and (2) the area temperature for the main steam tunnel (north) from 122°F to 135°F.

A copy of our Safety Evaluation is also enclosed for the change in drywell temperature, as well as a supplement to the Safety Evaluation used in support of Amendment No. 24. This supplement addresses the remaining items for the evaluation of the change in main steam line tunnel (north) temperature. Notice of Issuance will be includes in the Commission's biweekly Federal Register notice.

Sincerely,

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. 25
   to License No. NPF-47
2. Safety Evaluation
3. Supplement to Safety Evaluation

cc w/enclosures:
See next page

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

June 29, 1988

Docket No. 50-458

Gulf States Utilities
ATTN: Mr. James C. Deddens
Senior Vice President (RBNG)
Post Office Box 220
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Walter A. Paulson, Project Manager
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Office of Nuclear Reactor Regulation

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1. Amendment No. 25 to License No. NPF-47
2. Safety Evaluation
3. Supplement to Safety Evaluation

cc w/enclosures:
See next page

Mr. James C. Deddens
Gulf States Utilities Company

River Bend Nuclear Plant

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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. 25
License No. NPF-47

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment filed by Gulf States Utilities Company (the licensee), dated June 5, 1987 as modified May 13, 1988, 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. 25 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 is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

L S Rubenstein, for

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
Specification

Date of Issuance: June 29, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 25

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 contain vertical lines indicating the areas of change. Overleaf pages are provided to maintain document completeness.

REMOVE	INSERT
3/4 6-24	3/4 6-24
3/4 7-33	3/4 7-33

DRYWELL INTERNAL PRESSURE

LIMITING CONDITION FOR OPERATION

3.6.2.5 Drywell-to-primary containment differential pressure shall be maintained between - 0.3 and + 1.2 psid.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With the drywell-to-primary containment differential pressure outside of the specified limits, restore the differential pressure to within the limits within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.5 At least once per 12 hours, the drywell-to-primary containment differential pressure shall be determined to be within the limits.

DRYWELL AVERAGE AIR TEMPERATURE

LIMITING CONDITION FOR OPERATION

3.6.2.6 Drywell average air temperature shall not exceed 145°F.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With the drywell average air temperature greater than 145°F, reduce the average air temperature to within the limit within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.6 The drywell average air temperature shall be the arithmetical average of the temperatures at the following locations and shall be determined to be within the limit at least once per 24 hours:

	ELEVATION	AZIMUTH
a.	~145'	$20° \leq A \leq 60°$
b.	~145'	$100° \leq A \leq 150°$
c.	~145'	$190° \leq A \leq 265°$
d.	~145'	$290° \leq A \leq 330°$

TABLE 3.7.8-1

AREA TEMPERATURE MONITORING

AREA		TEMPERATURE LIMIT (°F)
1. Auxiliary Building		
a.	LPCS area	122
b.	RHR A pump room	122
c.	RCIC pump room	122
d.	RHR B pump room	122
e.	RHR C pump room	122
f.	HPCS pump room	122
g.	MCC area (West)	112
h.	MCC area (East)	116
i.	Main steam tunnel (north)	135
j.	Standby gas treatment rooms	122
k.	Annulus mixing fan area	122
l.	RHR Hx Area (West)	122
m.	Hoist Area	122
n.	RHR Hx Area (East)	122
o.	HPCS Hatch Area	122
p.	RPCCW Area	122
q.	Elevator Room	122
r.	RPCCW Area	122
s	RHR Equip. Removal Cubicles	122
2. Diesel Generator Control Rooms		
a.	Diesel Generator 1A	104
b.	Diesel Generator 1B	104
c.	Diesel Generator 1C	104
3. Control Building		
a.	Standby switchgear room 1A	104
b.	Standby switchgear room 1B	104
c.	Division I battery room	90
d.	Division II battery room	90
e.	Division III battery room	90
f.	Inverter 1A room	104
g.	Inverter 1B room	104
h.	Inverter 1C room	104

3/4.7.9 MAIN TURBINE BYPASS SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.9 The main turbine bypass system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITION 1 (when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER)

ACTION:

With the main turbine bypass system inoperable, restore the system to OPERABLE status within 1 hour or be at less than 25% of RATED THERMAL POWER within the next 4 hours.

SURVEILLANCE REQUIREMENTS

4.7.9 The main turbine bypass system shall be demonstrated OPERABLE:

a. At least once per 7 days by cycling each turbine bypass valve through at least one complete cycle of full travel, and

b. At least once per 18 months by:

1. Performing a system functional test which includes simulated automatic actuation and verifying that each automatic valve actuates to its correct position.

2. Demonstrating that TURBINE BYPASS SYSTEM RESPONSE TIMES meet the following requirements when measured from the initial closure movement of the main turbine stop valve or the main turbine control valve:

a) Main turbine bypass valve opening shall start within 0.1 seconds, and

b) at least 80% of main turbine bypass capacity shall be established within 0.3 seconds.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 25 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 June 5, 1987 as modified May 13, 1988, Gulf States Utilities Company (GSU) requested an amendment to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1. The proposed amendment, as modified, would (1) raise the drywell average temperature from 140°F to 145°F; (2) raise the allowable temperature for the main steam line (MSL) tunnel north from 122°F to 135°F; and (3) increase the main steam line tunnel north instrumentation setpoints and allowable temperature values for (a) MSL isolation, reactor core isolation cooling (RCIC) system isolation, and reactor water cleanup (RWCU) system isolation; and (b) MSL tunnel ambient and ventilation differential temperatures used for MSL isolation, and RCIC and RWCU isolation. The licensee's May 13, 1988 submittal withdrew that portion of the Technical Specification (TS) change request relating to items 2.h.1 and 2.h.2 of Table 3.3.2-2 in Attachment 3 of the June 5, 1987 application. This evaluation addresses the proposed changes to the TS as specified in Attachments 1 of the application (item (1) above). The staff's evaluation of Attachment 3 was issued on June 3, 1988 in support of Amendment No. 24 to the licensee. A supplement to the staff's evaluation of Attachment 3 addresses the proposed change to the TS as specified in Attachment 2.

The licensee proposed to increase the TS maximum allowable drywell bulk average air temperature, from the current value of 140°F, to 145°F. This requested increase in allowed operating temperature is due to a higher than expected heat load on the drywell coolers during occasional periods of greater than normal leakage through the safety relief (SR) and automatic depressurization system (ADS) valves. During the summer high temperature conditions, the licensee has estimated that the drywell coolers will be unable to maintain the Final Safety Analysis Report (FSAR) upper temperature limit of 140°F.

In support of this increase in the allowable drywell temperature, the licensee stated that the impact of the various Loss of Coolant Accident (LOCA), Small Break LOCA (SBLOCA) and Safety Relief Valve (SRV) events on the containment pressures and temperatures, and structural including dynamic loads for the proposed increase of the initial drywell temperature were already evaluated in the FSAR. In addition, the licensee reviewed the effects of this increase on the Drywell External Pressure Differential and the Containment External Pressure Differential. Finally, a reevalua-

tion of the Environmental Qualification (EQ) of equipment inside containment including the drywell, primary containment, containment heat removal systems, secondary containment, containment isolation system combustible gas control system and containment leakage testing system considering an increase of 5°F in the normal operating temperature was conducted by the licensee.

2.0 EVALUATION

The licensee's original analysis of LOCA related loads included drywell temperatures of up to 145°F.

Other LOCA related loads that the licensee reviewed include drywell external negative pressure, containment external pressure differential, and drywell and containment maximum temperatures. The results of these analyses indicate that the design values are either unchanged or bounded by the original parameteric analyses as discussed in the Updated Safety Analysis Report (USAR).

The impact of the increased drywell air temperature on the various pool dynamic loads cannot be easily assessed. Many individual loads can only be determined by test. As a result the licensee has reconsidered all pool dynamic loads. The approach taken by the licensee was to use all of the assumptions and methodologies employed in the development of each individual load.

A review of the analyses contained in the above references shows that the detailed engineering design of all primary containment structures considered a range of initial drywell temperatures from 100°F to 145°F. Since the proposed change from 140 to 145°F is still bounded by the original analysis, no reanalysis was necessary to support this change.

The licensee also evaluated the impact of the increased drywell temperature on the Equipment Qualification (EQ) of equipment inside the drywell and the remainder of the containment systems. This reevaluation considered both normal operation and LOCA conditions. For normal operating conditions, the licensee has revised the aging and operability assessment for equipment and components which would be exposed to the increased drywell temperature. With respect to accident conditions, the licensee's analyses in support of the increase in drywell temperature from 140°F to 145°F demonstrated that the original analyses remain bounding. Therefore, the LOCA EQ profiles are still valid.

Based on the evaluation provided above, the NRC staff has concluded that the licensee has reevaluated all aspects of power operation and LOCA conditions that could be affected by the increase in drywell operating temperature. Based on the results of these reanalyses, the licensee has demonstrated that the effects are either negligible or within the bounds of the design bases of the effected components. Finally, the impacts on the EQ program have been assessed and incorporated into the overall program. Based on the above evaluation, the staff finds the proposed temperature change in the drywell TS limit to 145°F is 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 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 security or to the health and safety of the public.

Principal Contributors: Harold Walker and Robert Luciardo

Dated: June 29, 1988

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

SUPPLEMENTAL SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 24 TO FACILITY OPERATING LICENSE NO. NPF-47

GULF STATES UTILITIES COMPANY

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

1.0 BACKGROUND

By letter dated June 5, 1987 as modified May 13, 1988, 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, as modified, would (1) raise the drywell average air temperature from 140°F to 145°F; (2) raise the allowable temperature for the main steam line tunnel (north) from 122°F to 135°F; and (3) increase the main steam line tunnel (north) instrumentation setpoints and allowable temperature values for various isolation signals. The Safety Evaluation related to Amendment No. 24 addressed the proposed changes to the Technical Specifications as specified in Attachment (3) of the application (item (3), above). The staff's evaluation of Attachment 1 is the subject of separate correspondence. This Supplemental Safety Evaluation addresses the proposed changes to the Technical Specifications as specified in Attachment 2 (item (2), above).

2.0 INTRODUCTION

This Supplemental Safety Evaluation addresses the proposed increase in the allowable temperature for the main steam line tunnel (north). In its previous Safety Evaluation the staff found that the licensee's proposed changes to the main steam line tunnel (north) allowable temperature and isolation setpoints to be acceptable. That evaluation did not address the equipment qualification aspects of the proposed changes. The following section is a supplement to the previous Staff Safety evaluation.

3.0 EVALUATION

3.3.3 Environmental Qualification Normal Operating Temperature Steady State

Additionally, the staff reviewed the proposed temperature increase with respect to equipment qualification. The licensee's submittal proposed that the normal operating temperature be increased from 122°F to 135°F, and that the environmental qualification temperature for normal operation needed to be addressed at 135°F and the qualified life of the equipment be re-evaluated accordingly. The licensee stated that this has been completed and that the related Environmental Qualification maintenance and surveillance

requirements have been updated to reflect the shorter qualified life and maintenance interval. Based on the above information submitted to the NRC staff by the licensee, the staff finds this acceptable, and therefore, this issue is resolved.

As discussed above and in the staff's previous Safety Evaluation, the proposed changes to the main steam line tunnel (north) allowable temperature and isolation setpoints are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This supplement does not change the staff's previous determination.

5.0 CONCLUSION

The staff has concluded, based on the 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.

Principal Contributor: J. Kudrick

Dated: June 29, 1988