

April 18, 1991

Docket No. 50-458

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

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Dear Mr. Deddens:

SUBJECT: RIVER BEND STATION, UNIT 1 - AMENDMENT NO. 56 TO FACILITY  
OPERATING LICENSE NO. NPF-47 (TAC NO. 79860)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 56 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 March 1, 1991.

The amendment revised TS Table 3.3.2-1, "Isolation Actuation Instrumentation," to correctly identify actuation of the emergency mode of the main control room area ventilation system (MCRAVS) at reactor water low, low level 2. The emergency mode of the MCRAVS diverts exhaust air through charcoal filters to provide control room personnel protection from airborne radiation during accident conditions. The control circuitry for the MCRAVS has been modified to initiate at reactor water low, low level 2; this amendment revises the TSs to reflect current plant design.

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

Sincerely,

Original Signed By

Claudia M. Abbate, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 56 to NPF-47
- 2. Safety Evaluation

cc w/enclosures:  
See next page

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NAME	PDIV-2/LA	PDIV-2/PM	SPLB/BC	OGC	PDIV-2/(A)D
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April 18, 1991

cc w/enclosures:  
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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. 56  
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 March 1, 1991, 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.

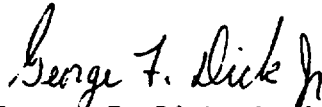
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-47 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 56 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



George F. Dick, Acting Director  
Project Directorate IV-2  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 18, 1991



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 56 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 March 1, 1991, Gulf States Utilities Company (GSU) (the licensee) requested an amendment to Facility Operating License No. NPF-47 for the River Bend Station (RBS), Unit 1. The proposed amendment would revise Technical Specification (TS) Table 3.3.2-1, "Isolation Actuation Instrumentation," to correctly identify actuation of the emergency mode of the main control room area ventilation system (MCRAVS) at reactor vessel water low, low level 2 (-43 inches) instead of low, low, low level 1 (-143 inches), which is currently reflected in the TS table. By letter dated February 28, 1991, GSU discussed the plant modification to be made during the forced outage beginning on February 27, 1991. The control circuitry for the charcoal filter start logic was modified so that the MCRAVS will start on reactor water low, low level 2. The proposed TS amendment will revise the TSs to reflect this modification.

2.0 EVALUATION

The MCRAVS is part of the control building air conditioning system and an engineered safety feature. The MCRAVS consists of two full capacity redundant air handling units, each with a charcoal filter train and dampers. To protect control room personnel against airborne radiation during accident conditions the MCRAVS automatically closes the dampers and diverts the exhaust air through the charcoal filters. This occurs on high drywell pressure, low reactor water level, or high radiation in the local air intake.

The plant was originally designed and TSs were written for initiation of the MCRAVS in the emergency mode at low, low, low level 1 (-143 inches). However, on February 12, 1991, GSU discovered calculations for a main steam line break assumed the MCRAVS received a start signal at reactor vessel water low, low level 2 (-43 inches). Because of the conflicting information, RBS placed one charcoal filter train in continuous service to bypass the automatic function of the MCRAVS and performed a review of Updated Safety Analysis Report (USAR) Sections 7.3.1.1.9 and 7.3.2, the TSs, and radiological dose calculations to determine the correct initiation level. RBS determined that if the MCRAVS initiated on reactor water low, low, low level 1, the initiation would occur too late and the regulatory dose limit to the thyroid would be exceeded for control room personnel. Therefore, RBS concluded the MCRAVS should start on a low, low level 2 reactor water level and a plant modification during shutdown would be needed. On February 27, 1991, RBS entered a forced outage to repair a recirculation pump seal and made plans to modify the control circuitry for the MCRAVS. By letter dated February 28, 1991, GSU discussed the modification and resulting TS change.

Because the plant modification resulted in an initiation signal for the MCRAVS which was more conservative than current TSs, the modification was performed without an immediate change to the TSs. The emergency mode of the MCRAVS now actuates on low, low level 2 reactor water level.

Licensee Event Report (LER) 91-001, dated March 14, 1991, discussed why the discrepancy occurred, provided GSU's design analyses, described the control of design documentation, discussed the root cause analysis, corrective action and GSU's safety assessment. GSU concluded that no other control room habitability analyses or LOCA related accident analyses were impacted by the low, low, low level 1/low, low level 2 discrepancy. Additionally, as a result of GSU's investigation of the discrepancy, a number of other discrepancies were identified and resolved.

Based on the staff's review of the licensee's application and LER, and the applicable sections of the USAR, Safety Evaluation Report (SER), and Standard Review Plan (SRP), the plant modification and proposed TS changes are acceptable.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Louisiana State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (56 FR 10582). Accordingly, the 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 the amendment.

### 5.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) 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: Claudia M. Abbate, PDIV-2

Date: April 18, 1991

## INSTRUMENTATION

### SURVEILLANCE REQUIREMENTS

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4.3.2.1 Each isolation actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.2.1-1.

4.3.2.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.\*

4.3.2.3 The ISOLATION SYSTEM RESPONSE TIME of each isolation trip function shown in Table 3.3.2-3 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months, where N is the total number of redundant channels in a specific isolation trip system.

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\*Logic System Functional Testing period may be extended as identified by notes C and D on Table 4.3.2.1-1.

TABLE 3.3.2-1

ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>VALVE GROUPS OPERATED BY SIGNAL***</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
<b>1. PRIMARY CONTAINMENT ISOLATION</b>				
a. Reactor Vessel Water Level- Low Low, Level 2	1, 7, 8, 9 <sup>(b)(c)(j)</sup> , 15, 16	2	1, 2, 3	20
b. Drywell Pressure - High	1, 3, 8 <sup>(b)(c)(j)</sup>	2	1, 2, 3	20
c. Containment Purge Isolation Radiation - High	8	1	1, 2, 3	21
<b>2. MAIN STEAM LINE ISOLATION</b>				
a. Reactor Vessel Water Level- Low Low Low, Level 1	6	2	1, 2, 3	20
b. Main Steam Line Radiation - High	6, 9 <sup>(d)</sup>	2	1, 2, 3	23
c. Main Steam Line Pressure - Low	6	2	1	24
d. Main Steam Line Flow - High	6	2/MSL	1, 2, 3	23
e. Condenser Vacuum - Low	6	2	1, 2**, 3**	23
f. Main Steam Line Tunnel Temperature - High	6	2	1, 2, 3	23
g. Main Steam Line Tunnel $\Delta$ Temperature - High	6	2	1, 2, 3	23
h. Main Steam Line Area Temperature High (Turbine Building)	6	2/area	1, 2, 3	23



TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>VALVE GROUPS OPERATED BY SIGNAL***</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
<b>3. <u>SECONDARY CONTAINMENT ISOLATION</u></b>				
a. Reactor Vessel Water Level-Low Low, Level 2	11, 12, 13 <sup>(b)(c)(e)(h)(i)</sup>	2	1, 2, 3	25
b. Drywell Pressure - High	11, 12, 13 <sup>(b)(c)(e)(h)(i)</sup>	2	1, 2, 3	25
c. Fuel Building Ventilation Exhaust Radiation - High	13 <sup>(e)(h)</sup>	1	*	28
d. Reactor Building Annulus Ventilation Exhaust Radiation - High	12 <sup>(b)(e)(i)</sup>	1	1, 2, 3	29
<b>4. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION</u></b>				
a. Δ Flow - High	7, 15, 16	1	1, 2, 3	27
b. Δ Flow Timer	7, 15, 16	1	1, 2, 3	27
c. Equipment Area Temperature - High	7, 15, 16	1	1, 2, 3	27
d. Equipment Area Δ Temperature - High	7, 15, 16	1	1, 2, 3	27
e. Reactor Vessel Water Level - Low Low, Level 2	7, 15, 16	2	1, 2, 3	27
f. Main Steam Line Tunnel Ambient Temperature - High	7, 15, 16	1	1, 2, 3	27

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>VALVE GROUPS OPERATED BY SIGNAL***</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
4. <u>REACTOR WATER CLEANUP SYSTEM ISOLATION (continued)</u>				
g. Main Steam Line Tunnel $\Delta$ Temperature - High	7, 15, 16	1	1, 2, 3	27
h. SLCS Initiation	7 <sup>(f)</sup> , 16	1 <sup>(f)</sup>	1, 2, 3	27
5. <u>REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u>				
a. RCIC Steam Line Flow - High	2	1	1, 2, 3	27
b. RCIC Steam Line Flow - High Timer	2	1	1, 2, 3	27
c. RCIC Steam Supply Pressure - Low	2	1	1, 2, 3	27
d. RCIC Turbine Exhaust Diaphragm Pressure - High	2	2	1, 2, 3	27
e. RCIC Equipment Room Ambient Temperature - High	2	1	1, 2, 3	27
f. RCIC Equipment Room $\Delta$ Temperature - High	2	1	1, 2, 3	27
g. Main Steam Line Tunnel Ambient Temperature - High	2	1	1, 2, 3	27
h. Main Steam Line Tunnel $\Delta$ Temperature - High	2	1	1, 2, 3	27

ATTACHMENT TO LICENSE AMENDMENT NO. 56

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 a vertical line indicating the area of change. The overleaf pages are provided to maintain document completeness.

REMOVE

3/4 3-12  
3/4 3-13

INSERT

3/4 3-12  
3/4 3-13