Docket No. 50-458

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. 29 TO FACILITY

OPERATING LICENSE NO. NPF-47 (TAC NO. 69102)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 29 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 5, 1988.

The amendment revises the definition of core alteration to exclude the normal movement of local power range monitors from this definition.

A copy of our Safety Evaluation is enclosed. Notice of Issuance will be included 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. 29 to License No. NPF-47

2. Safety Evaluation

cc w/enclosures: See next page

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MHodges

DOCUMENT NAME: AMEND TAC 69102

\*See previous concurrences:

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A copy of our Safety Evaluation is enclosed. Notice of Issuance will be included 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

TO FACILITY

Enclosures:

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2. Safety Evaluation

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Senior Vice President (RBNG)

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Sincerely,

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

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

October 12, 1988

Docket No. 50-458

**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. 29 TO FACILITY

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The Nuclear Regulatory Commission has issued the enclosed Amendment No. 29 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 5, 1988.

The amendment revises the definition of core alteration to exclude the normal movement of local power range monitors from this definition.

A copy of our Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal</u> <u>Register</u> 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. 29 to License No. NPF-47

2. Safety Evaluation

cc w/enclosures: See next page Mr. James C. Deddens Gulf States Utilities Company

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

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Mr. William H. Spell, Administrator Nuclear Energy Division Office of Environmental Affairs P. O. Box 14690 Baton Rouge, Louisiana 70898

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Mr. Frank J. Uddo Uddo & Porter 6305 Elysian Fields Avenue Suite 400 New Orleans, Louisiana 70122



# 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. 29 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 August 5, 1988, 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. 29 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

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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: October 12, 1988

# ATTACHMENT TO LICENSE AMENDMENT NO. 29

# 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. Overleaf page provided to maintain document completeness.

REMOVE PAGES	INSERT PAGES	
1-2	1-2	
3/4 3-4	3/4 3-4	

The following terms are defined so that uniform interpretation of these specifications may be achieved. The defined terms appear in capitalized type and shall be applicable throughout these Technical Specifications.

#### ACTION

1.1 ACTION shall be that part of a Specification which prescribes remedial measures required under designated conditions.

## AVERAGE PLANAR EXPOSURE

1.2 The AVERAGE PLANAR EXPOSURE shall be applicable to a specific planar height and is equal to the sum of the exposure of all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

## AVERAGE PLANAR LINEAR HEAT GENERATION RATE

1.3 The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) shall be applicable to a specific planar height and is equal to the sum of the LINEAR HEAT GENERATION RATES for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

#### CHANNEL CALIBRATION

1.4 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds with the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and alarm and/or trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is calibrated.

#### CHANNEL CHECK

1.5 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

#### CHANNEL FUNCTIONAL TEST

- 1.6 A CHANNEL FUNCTIONAL TEST shall be:
  - a. Analog channels the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY including alarm and/or trip functions and channel failure trips.
  - b. Bistable channels the injection of a simulated signal into the sensor to verify OPERABILITY including alarm and/or trip functions.

The CHANNEL FUNCTIONAL TEST may be performed by any series of sequential, overlapping or total channel steps such that the entire channel is tested.

# CORE ALTERATION

1.7 CORE ALTERATION shall be the addition, removal, relocation or movement of fuel, sources, incore instruments or reactivity controls within the reactor pressure vessel with the vessel head removed and fuel in the vessel. Normal movement of the SRMs, IRMs, LPRMs, TIPs or special movable detectors is not considered a CORE ALTERATION. Suspension of CORE ALTERATIONS shall not preclude completion of the movement of a component to a safe conservative position.

# CORE MAXIMUM FRACTION OF LIMITING POWER DENSITY

1.8 The CORE MAXIMUM FRACTION OF LIMITING POWER DENSITY (CMFLPD) shall be the highest value of the FLPD which exists in the core.

# CRITICAL POWER RATIO

1.9 The CRITICAL POWER RATIO (CPR) shall be the ratio of that power in the assembly which is calculated by application of the GEXL correlation to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

# DOSE EQUIVALENT I-131

1.10 DOSE EQUIVALENT I-131 shall be that concentration of I-131, microcuries per gram, which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites."

# DRYWELL INTEGRITY

- 1.11 DRYWELL INTEGRITY shall exist when:
  - a. All drywell penetrations required to be closed during accident conditions are either:
    - Capable of being closed by an OPERABLE drywell automatic isolation system, or
    - 2. Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position, except as provided in Specification 3.6.4.
  - b. All drywell equipment hatches are closed and sealed.
  - c. The drywell airlock is in compliance with the requirements of Specification 3.6.2.3.

# TABLE 3.3.1-1 (Continued)

# REACTOR PROTECTION SYSTEM INSTRUMENTATION

FUN	CTIONAL UNIT	APPLICABLE OPERATIONAL CONDITIONS	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)	ACTION
9.	Scram Discharge Volume Water Level - High a. Level Transmitter	<sup>1</sup> <sub>5</sub> (g) <sup>2</sup>	2 2	1 3
	b. Float Switches	1 <sub>5</sub> (g) <sup>2</sup>	2 2	1 3
10.	Turbine Stop Valve - Closure	1 <sup>(h)</sup>	4	6
11.	Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	1 <sup>(h)</sup>	2	6
12.	Reactor Mode Switch Shutdown Position	1, 2 3, 4 5	2 2 2	1 7 3
13.	Manual Scram	1, 2 3, 4 5	2 2 2	1 8 9

# TABLE 3.3.1-1 (Continued)

# REACTOR PROTECTION SYSTEM INSTRUMENTATION

# ACTION

- Be in at least HOT SHUTDOWN within 12 hours. ACTION 1 -
- ACTION 2 -Within 1 hour, verify all insertable control rods to be inserted in the core and lock the reactor mode switch in the Shutdown position.
- ACTION 3 -Suspend all operations involving CORE ALTERATIONS and insert all insertable control rods within one hour.
- Be in at least STARTUP within 6 hours. ACTION 4 -
- Be in STARTUP with the main steam line isolation valves closed ACTION 5 within 6 hours or in at least HOT SHUTDOWN within 12 hours.
- ACTION 6 -Within 1 hour, place the inoperable instrument channels in both trip systems in the tripped condition; otherwise, initiate a reduction in THERMAL POWER within 15 minutes and reduce turbine first stage pressure to less than the automatic bypass setpoint (less than 40% of RATED THERMAL POWER) within 2 hours.
- Within 1 hour, verify all insertable control rods to be inserted. ACTION 7 -
- Lock the reactor mode switch in the Shutdown position within ACTION 8 one hour.
- Suspend all operations involving CORE ALTERATIONS, and insert ACTION 9 all insertable control rods and lock the reactor mode switch in the Shutdown position within one hour.
- Within one hour, place the inoperable instrument channels in ACTION 10 both trip systems in the tripped condition; otherwise be in at least STARTUP within 6 hours.



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

### SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 29 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 5, 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 would modify the Technical Specifications (TSs) to revise the definition of core alteration to exclude the normal movement (including replacement) of local power range monitors (LPRMs) from this definition.

#### 2.0 EVALUATION

Technical Specification Definition 1.7, CORE ALTERATION, currently does not consider normal movement of the source range monitors, intermediate range monitors, traversing in-core probes, or special moveable detectors to be considered a core alteration. This change request would provide the same exclusion for LPRMs.

River Bend Station is a BWR/6 boiling water reactor which incorporates certain design changes compared to earlier boiling water reactors. One of these changes is the introduction of a dry tube that houses the LPRM strings. The dry tubes extend from the bottom of the reactor pressure vessel vertically to the top of the core. Thus, removal and installation of the LPRMs from underneath the reactor pressure vessel can be accomplished without the removal of the reactor vessel head and fuel does not need to be moved from around the dry tube for maintenance or replacement of LPRMs. The LPRM strings are only removed from the core when they are being replaced and they have no normal drive mechanisms. Based on the above discussion, the staff concludes that the exclusion of the LPRMs in the definition of core alteration is acceptable.

With the modification of the definition of core alteration discussed above, the footnote excepting replacement of LPRM strings applicable to Action 3 and Action 9 of Table 3.3.1-1 is no longer necessary. The staff concludes that deletion of the footnote 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. 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: October 12, 1988

Principal Contributor: W. Paulson