

April 11, 1988

Docket No. 50-458

DISTRIBUTION

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

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J. Craig

Dear Mr. Deddens:

SUBJECT: RIVER BEND STATION, UNIT 1 - AMENDMENT NO.20 TO FACILITY  
OPERATING LICENSE NO. NPF-47 (TAC NO. 66664)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 20 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 November 13, 1987.

The amendment revises the surveillance requirements of section 4.7.1.2 of the TSs to reflect the upgraded ultimate heat sink water temperature monitoring system that was installed during the first refueling outage. The staff's safety evaluation approving the upgraded system was forwarded by letter dated September 28, 1987.

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

Sincerely,

/s/

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. 20 to License No. NPF-47
- 2. Safety Evaluation

cc w/enclosures:  
See next page

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04/11/88



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
April 11, 1988

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*Walter A. Paulson*

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Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

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2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. James C. Deddens  
Gulf States Utilities Company

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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. 20  
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 November 13, 1987, 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.

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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. 20 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

*Jose A. Calvo*

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: April 11, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 20

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 PAGES

3/4 7-4

INSERT PAGES

3/4 7-4

## PLANT SYSTEMS

### ULTIMATE HEAT SINK

#### LIMITING CONDITION FOR OPERATION

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3.7.1.2 The standby cooling water storage basin shall be OPERABLE with:

- a. A minimum basin water level at or above elevation 111'10" Mean Sea Level, USGS datum, and
- b. A basin water temperature of less than or equal to 82°F.
- c. Two OPERABLE cooling tower fan cells (5 fans per cell) per division.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, 5 and \*.

#### ACTION:

With the requirements of the above specification not satisfied:

- a. With the basin water level less than 111'10" MSL or the temperature greater than 82°F, then declare the SSW system inoperable and take the ACTION required by Specification 3.7.1.1.
- b. In OPERATIONAL CONDITION 1, 2, or 3 with any one fan cell inoperable, restore the inoperable fan cell to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and COLD SHUTDOWN within the next 24 hours.
- c. In OPERATIONAL CONDITION 1, 2, or 3 with one fan cell per division inoperable, restore at least one to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the next 24 hours.
- d. In OPERATIONAL CONDITION 1, 2, or 3 with both fan cells in one division inoperable, restore at least one of the inoperable fan cells to OPERABLE status within 72 hours and with both SSW pumps in the other division inoperable, align the OPERABLE SSW pumps to the OPERABLE fan cells within 2 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.
- e. In OPERATIONAL CONDITION 1, 2, or 3 with the cooling tower fan cells otherwise inoperable be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the next 24 hours.
- f. In OPERATIONAL CONDITION 4, 5, \* with one or less fan cells OPERABLE, declare the SSW system inoperable and take the ACTION required by Specification 3.7.1.1. The provisions of Specification 3.0.3 are not applicable.

\*When handling irradiated fuel in the primary containment or Fuel Building.



PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

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4.7.1.2 The standby cooling tower and water storage basin shall be determined OPERABLE:

- a. At least once per 24 hours by verifying the basin water level to be at least elevation 111'10".
- b. By verifying the arithmetical average\* water temperature to be less than or equal to 82°F:
  1. At least once per 24 hours, and
  2. At least once per 4 hours when the control room alarm is inoperable and the last recorded basin water temperature is greater than or equal to 75°F, and
  3. At least once per 2 hours when the control room alarm is inoperable and the last recorded basin water temperature is greater than or equal to 80°F.
- c. At least once per 31 days by starting the cooling tower fans in each cell from the control room and operating each fan cell for at least 15 minutes.

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\*The average shall include at least 4 operable sensors of which at least half shall be located above elevation 94'-0".



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 20 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 November 13, 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 revise section 4.7.1.2 of the Technical Specifications (TSs) to reflect the upgraded ultimate heat sink temperature monitoring system that was installed during the first refueling outage which ended December 26, 1987. The NRC staff approved the upgraded temperature monitoring system design by letter dated September 28, 1987.

2.0 EVALUATION

The purpose of the ultimate heat sink (UHS) is to provide shutdown cooling and decay heat removal following a design basis accident. The licensee's analysis of shutdown cooling and decay heat removal, as documented in section 9.2.5 of the River Bend Station Updated Safety Analysis Report, assumes that the UHS water temperature is no higher than 82°F prior to a postulated design basis event.

The upgraded UHS temperature monitoring system consists of four wide range (0-100°) sensors at approximate elevations of 110 and 65 feet; and eight-narrow range sensors at approximate elevations of 111 feet, 102 feet, 87 feet and 72 feet. The sensors feed a processor which averages the input temperature values, provides local wide and narrow range indication, control room wide and narrow range indication and a main control room alarm. The processor has an installed backup which can be replaced by a standard personal computer. The previous design consisted of local sensors at elevation 95 feet.

The current TSs require verification each 24 hours that the water temperature is less than or equal to 82°F. Additional provisions require that the temperatures be verified every 4 hours if the previous reading was greater than or equal to 75°F or every 2 hours when it was greater than or equal to 80°F.

The proposed TSs retain the requirement to verify that the water temperature is less than or equal to 82°F every 24 hours. Because of the capability of the enhanced system to provide temperature readouts in the control

room and also to provide an alarm in the control room, the licensee's proposed TS does not require increased surveillance when the UHS water temperature exceeds 75°F when the control room alarm is operable. If the control room alarm is inoperable, then the increased surveillance is required when the water temperature exceeds 75° F as in the case of the current TSs. Because of the increased capability of the new system to provide UHS readouts in the control room and an alarm in the control room, the staff finds this change acceptable.

The proposed TS also clarifies that the average water temperature is an arithmetical average and requires that the average shall include at least 4 operable sensors of which at least half shall be located above elevation 94 feet. The staff finds that this required distribution of operable sensors will assure a representative measure of the UHS water temperature. The staff finds that this TS change is acceptable.

The NRC staff concludes that the proposed UHS water temperature surveillance requirements are 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/or 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

This 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. The staff therefore concludes that the proposed changes are acceptable, and they are hereby incorporated into the River Bend Unit 1 Technical Specifications.

Principal Contributor: Walter A. Paulson

Dated: April 11, 1988