

October 4, 1990

Docket No. 50-458

DISTRIBUTION:

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

Docket File DHagan  
NRC PDR GHill (4)  
Local PDR Wanda Jones  
PDIV-2 Reading JCalvo  
MVirgilio PDIV-2 Plant File  
JLinville ACRS (10)  
EPeyton GPA/PA  
CAbbate (2) ARM/LFMB  
OGC LConstable, Region IV

Dear Mr. Deddens:

SUBJECT: RIVER BEND STATION, UNIT 1 - AMENDMENT NO. 50 TO FACILITY  
OPERATING LICENSE NO. NPF-47 (TAC NO. 77502)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 50 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 22, 1990.

The amendment revises TS 3/4.7.1.2, "Ultimate Heat Sink," to increase the allowable ultimate heat sink basin temperature from 82°F to 88°F.

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 Engineer  
Project Directorate IV-2  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 50 to NPF-47
- 2. Safety Evaluation

cc w/enclosures:  
See next page

OFC	: PDIV-2/LA	: PDIV-2/PE	: OGC <i>LD</i>	: PDIV-2/AD	:	:	:
NAME	: <i>esp</i> EPeyton	: <i>CHA</i> CAbbate: jc	: <i>L. DEWEY</i>	: JLinville	:	:	:
DATE	: 10/1 /90	: 10/1 /90	: 10/2 /90	: 10/4 /90:	:	:	:

*CP-1*

OFFICIAL RECORD COPY  
Document Name: RIVER BEND AMENDMENT/77502

9010170001 901004  
PDR ADDCK 05000458  
PDC

*DF 01*  
*11*

Mr. James C. Deddens

- 2 -

October 4, 1990

cc w/enclosures:

Mark Wetterhahn, Esq.  
Bishop, Cook, Purcell & Reynolds  
1401 L Street, N.W.  
Washington, D.C. 20005

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

Mr. Les England  
Director - Nuclear Licensing  
Gulf States Utilities Company  
P. O. Box 220  
St. Francisville, Louisiana 70775

Mr. Philip G. Harris  
Cajun Electric Power Coop. Inc.  
10719 Airline Highway  
P. O. Box 15540  
Baton Rouge, Louisiana 70895

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

President of West Feliciana  
Police Jury  
P. O. Box 1921  
St. Francisville, Louisiana 70775

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

Mr. J. E. Booker  
Manager-Nuclear Industry Relations  
P. O. Box 2951  
Beaumont, Texas 77704

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

Mr. J. David McNeill, III  
William G. Davis, Esq.  
Department of Justice  
Attorney General's Office  
P. O. Box 94095  
Baton Rouge, Louisiana 70804-9095



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. 50  
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 22, 1990, 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.

9010170002 901004  
PDR ADDCK 05000458  
P PDC

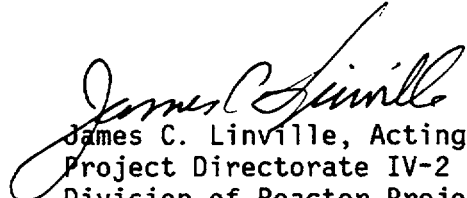
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-47 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 50 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

  
James C. Linville, Acting Director  
Project Directorate IV-2  
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 4, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 50

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 7-3  
3/4 7-4

INSERT

3/4 7-3  
3/4 7-4

PLANT SYSTEMS

ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

---

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 88°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 88°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

---

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 88°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.

---

\*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. 50 TO FACILITY OPERATING LICENSE NO. NPF-47

GULF STATES UTILITIES COMPANY

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

INTRODUCTION

By letter dated August 22, 1990, Gulf States Utilities Company (GSU) (the licensee) requested an amendment to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1 (RBS). The proposed amendment would revise Technical Specification (TS) 3/4.7.1.2, "Ultimate Heat Sink," to increase the allowable ultimate heat sink temperature from 82°F to 88°F. The proposed change would allow GSU to use the ultimate heat sink to cool plant equipment when it is necessary to remove the normal service water system from service for required maintenance and when normal service water temperature nears its design limit of 95°F and adequate temperature differentials are unobtainable.

EVALUATION

The ultimate heat sink is designed to provide sufficient cooling water to permit safe shutdown and cooldown of the plant when normal cooling towers are unavailable. Regulatory Guide (RG) 1.27 requires that sufficient conservatism be provided to ensure that a 30-day supply of water is available.

The adequacy of the ultimate heat sink at RBS was previously reviewed by the NRC staff in the safety evaluation reports as documented in NUREG-0989 and its Supplement Nos. 1 and 2. Using the same methodology, the licensee reanalyzed the impact of the increased ultimate heat sink basin temperature. The assumption of a delayed 2-hour fan start used in Supplement 2 was adopted. The heat load requirement as a function of time was assumed to be the same. In order to meet this requirement, the cooling tower return water temperature was recalculated to be lower than the design basis service water inlet temperature of 95°F, which was the value assumed for evaluation of the containment heat removal systems and the residual heat removal heat exchanger. In the previous safety evaluation report, Supplement 1 to NUREG-0989, it was stated that the staff's contractor, Argonne National Laboratory (ANL), calculated maximum cooling tower return water temperature was 89.9°F, which provided a comfortable margin for the required 95°F. Based on the basin temperature of 88°F, the licensee recalculated the maximum cooling tower return water temperature to be 92°F, which still provides sufficient margin for the required 95°F.

9010170003 901004  
PDR ADOCK 05000458  
F PDC



Furthermore, assuming the basin water temperature of 88°F, the licensee recalculated the amount of water available from the basin at the end of 30 days following a design-basis accident. Assuming the same meteorological conditions used in the previous analyses, the licensee calculated that the maximum loss of basin water from drift, natural, and forced evaporation and leakage would be 6,039,000 gallons of water. This loss resulted in 409,600 gallons of water remaining at the end of the 30-day period. Although there would be less water available compared to the previous analysis, it still provides sufficient margin for the requirement of 30-day water supply.

Based on the licensee's reanalysis, the maximum cooling tower return water temperatures remain below the design basis service water inlet temperature of 95°F, and the 30-day supply of basin water is satisfied. Therefore, the staff concludes that the plant still meets the requirements in RG 1.27 even with the increased basin temperature of 88°F and that the proposed TS changes to increase the ultimate heat sink temperature from 82°F to 88°F are acceptable.

#### ENVIRONMENTAL CONSIDERATION

The amendment involves a change in 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 changes in 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 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.

#### 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. The staff therefore concludes that the proposed changes are acceptable.

Dated: October 4, 1990

Principal Contributor: C. Li, SPLB