

September 5, 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. 60 TO FACILITY
OPERATING LICENSE NO. NPF-47 (TAC NO. 80421)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 60 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 May 14, 1991.

The amendment revised the alarm setpoint for the offgas pretreatment noble gas activity monitor in TS Table 3.3.7.1-1, "Radiation Monitoring Instrumentation," from 2.48×10^4 millirem/hour (mr/hr) to 3410 mr/hr. The setpoint was reduced to correct calculation methodologies which resulted in the original non-conservative setpoint.

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

Douglas Pickett, Project Manager
Project Directorate IV-2
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 60 to NPF-47
2. Safety Evaluation

cc w/enclosures:
See next page

OFC	: PDIV-2/LA	: PDIV-2/PM	: OGC	: PDIV-2/(A)D	: BC/SICB	: PDIV-2	:
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Mr. James C. Deddens

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September 5, 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. 60
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 May 14, 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.

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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. 60 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



Suzanne C. Black, 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: September 5, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 60

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. The overleaf page is provided to maintain document completeness.

REMOVE

3/4 3-66

INSERT

3/4 3-66

INSTRUMENTATION

3/4.3.7 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.1 The radiation monitoring instrumentation channels shown in Table 3.3.7.1-1 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3.7.1-1.

ACTION:

- a. With a radiation monitoring instrumentation channel alarm/trip setpoint exceeding the value shown in Table 3.3.7.1-1, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION required by Table 3.3.7.1-1.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.1 Each of the above required radiation monitoring instrumentation channels shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the conditions and at the frequencies shown in Table 4.3.7.1-1.

TABLE 3.3.7.1-1
RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENTATION</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE CONDITIONS</u>	<u>ALARM/TRIP SETPOINT</u>	<u>ACTION</u>
1. Main Control Room Ventilation Radiation Monitor				
a. Local Intake	2	1,2,3,5 and *	$< 0.97 \times 10^{-5} \mu\text{Ci/cc}^{(a)}$	70
b. Remote Intake	1	1,2,3,5 and *	$\leq 0.97 \times 10^{-5} \mu\text{Ci/cc}^{(a)}$	71
2. Area Monitor				
a. Fuel Building Spent Fuel Storage Pool	1	#	$\leq 15 \text{ mR/hr}^{(a)}$	71
3. Main Condenser Offgas Post-Treatment System Effluent Monitoring System				
a. Noble Gas Activity Monitor - (Providing Alarm and Automatic Termination of Release)	1	**	$\leq 5.08 \times 10^5 \text{ cpm}$	72
4. Condenser Air Ejector Pretreatment Radioactivity Monitor (Prior to Input to Holdup System)				
a. Noble Gas Activity Monitor	1	**	$\leq 3410 \text{ mR/hr}^{(a)}$	73

TABLE 3.3.7.1-1
RADIATION MONITORING INSTRUMENTATION

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 60 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 May 14, 1991, 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 change the alarm setpoint for the offgas pretreatment noble gas activity monitor in Technical Specification (TS) Table 3.3.7.1-1, "Radiation Monitoring Instrumentation," from the current value of 2.48×10^4 millirem/hour (mr/hr) to 3410 mr/hr. The original setpoint was discovered to be non-conservative due to calculation methodologies and resulted in a condition outside the design basis of the plant.

The offgas system receives offgas from the main condenser air ejectors and is designed to reduce the gaseous radwaste emissions from the plant and to alert the operators of fuel failure by monitoring radioactivity in the condenser offgas before it enters the delay pipe and after it has passed through the offgas condenser and water separator. The system consists of heaters, catalytic recombiners, condensers, water and moisture separators, filters, and charcoal adsorbers. The noble gas activity radiation monitor located after the offgas condenser continuously monitors radioactivity releases from the reactor and monitors activity going into the charcoal adsorbers and provides an alarm in the control room on high radiation. The system is normally in the bypass mode during startup testing to protect the charcoal adsorbers when the gas activity is zero or very low.

2.0 EVALUATION

The non-conservative calculations were discovered in March 1990, during a review for a modification to the location of the detector portion of the monitor. Licensee Event Report (LER) 90-005, Revision 0, dated April 2, 1990, was submitted and described the identification of the condition. A review of the methodology for establishing the original setpoint identified two errors. First, the original calculation did not consider the different flow rates in each operating mode (start-up versus power operation). The current analysis bases the setpoint only on the flow rate during power operation. Second, the original calculation used 105 percent reactor thermal power as the basis for the total steam-to-main condenser mass flow rate. The current analysis bases the setpoint on 100 percent reactor thermal power which is consistent with the Technical Specification total activity release rate limit.

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The new setpoint is based on operational experience which confirmed that during plant startup, 95 percent of the non-condensable gases are removed from the main condenser by the air removal system compressors which are filtered and released through the plant stack. This occurs with the offgas system not in operation and the charcoal adsorbers bypassed to avoid damage to the adsorbers due to high moisture content in the offgas. Once the air removal compressors are shut off and the offgas system flow is less than 50 scfm, the charcoal adsorbers are taken out of the bypass mode and the offgas system is placed in service. This supports the offgas flow rate used to calculate an alarm setpoint of 3410 mr/hr.

The main steam and condenser offgas are monitored in several areas in addition to the offgas pretreatment monitor. These include the main steam tunnel, offgas downstream of the charcoal adsorber, the main plant exhaust, and the offgas building ventilation system. Due to these redundant, independent monitors and alarms, GSU is assured that the non-conservative setpoint has not affected the health and safety of the public.

Additionally, GSU plans on incorporating the new calculations into the Updated Safety Analysis Report, Section 13.3, "Emergency Plan," by updating the emergency action level 3, Notice of Unusual Event, and action level 1, Alert, notifications.

The NRC staff has reviewed the LERs, the TS change request, and Sections 9.4.4.2.5, 11.3.2, and 15.7 of the Updated Safety Analysis Report, and 11.3 of the Standard Review Plan, and concludes the proposed decrease in the pretreatment radiation monitor alarm setpoint to 3410 mr/hr is 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 27046). 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 Contributors: Claudia M. Abbate, PDIV-2
Donna M. Skay, PDIV-2

Date: September 5, 1991