

June 3, 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

Dear Mr. Deddens:

DISTRIBUTION:

Docket File	DHagan
NRC PDR	GHill (3)
Local PDR	Wanda Jones
PDIV-2 Reading	REmch
BBoger	PDIV-2 Plant File
MVirgilio	ACRS (10)
EPeyton	GPA/PA
CAbbate (2)	ARM/LFMB
OGC	PHarrell, Region IV
CMcCracken	DSkay

SUBJECT: RIVER BEND STATION, UNIT 1 - AMENDMENT NO. 58 TO FACILITY
OPERATING LICENSE NO. NPF-47 (TAC NO. 79991)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 58 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 12, 1991.

The amendment modifies Technical Specification 3.6.2.3 "Drywell Air Locks" to allow the use of the drywell air lock in Operational Condition 3 for up to 7 days with one of the doors inoperable.

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. 58 to NPF-47
2. Safety Evaluation

cc w/enclosures:
See next page

FC	: PDIV-2/LA	: PDIV-2	: SPLB:DST	: PDIV-2/PM	: OGC	: PDIV-2(A)D :
AME	: EPeyton	: DSkay <i>DSkay</i>	: CMcCracken	: CAbbate:VSD	: <i>PH</i>	: GDick <i>GDick</i>
DATE	: 5/9/91	: 5/10/91	: 5/10/91	: 5/10/91	: 5/13/91	: 5/31/91

OFFICIAL RECORD COPY
Document Name: RIVER BEND NPF47 TAC M79991

NRC FILE CENTER COPY

9106130090 910603
PDR ADDCK 05000458
P PDR

CP-1
DF01
11

Mr. James C. Deddens

- 2 -

cc w/enclosures:

Winston & Strawn
ATTN: Mark J. Wetterhahn, Esq.
1400 L Street, N.W.
Washington, D.C. 20005-3502

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
Gulf States Utilities
P. O. Box 2951
Beaumont, Texas 77704

Mr. Glenn Miller, 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. 58
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 12, 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.

9106130098 910603
PDR ADOCK 05000458
P PDR

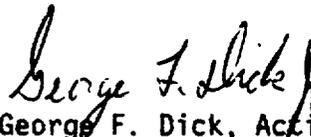
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-47 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 58 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: June 3, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 58

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 6-20
B 3/4 6-4

INSERT

3/4 6-20
B 3/4 6-4

CONTAINMENT SYSTEMS

DRYWELL BYPASS LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.2.2 Drywell bypass leakage shall be less than or equal to 10% of the acceptable A/\sqrt{k} design value of 1.0 ft².

APPLICABILITY: When DRYWELL INTEGRITY is required per Specification 3.6.2.1.

ACTION:

With the drywell bypass leakage greater than 10% of the acceptable A/\sqrt{k} design value of 1.0 ft², restore the drywell bypass leakage to within the limit prior to increasing reactor coolant system temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.2.2 At least once per 18 months*, the drywell bypass leakage rate test shall be conducted at an initial differential pressure of 3.0 psid and the A/\sqrt{k} shall be calculated from the measured leakage. One drywell air lock door shall remain open during the drywell leakage test such that each drywell door is leak tested during at least every other leakage rate test.

- a. If any drywell bypass leakage test fails to meet the specified limit, the schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the limit, a test shall be performed at least every 9 months until two consecutive tests meet the limit, at which time the 18 month test schedule may be resumed.

*For the first cycle only, this may be extended to coincide with the refueling outage, scheduled to begin September 15, 1987.

CONTAINMENT SYSTEMS

DRYWELL AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.2.3 The drywell air lock shall be OPERABLE with:

- a. Both doors closed except that, when the air lock is being used for normal transit entry and exit through the drywell, at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to 11.85 scf per hour at 3.0 psid, and
- c. The inflatable seal system air flask pressure \geq 75 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2*, and 3.

ACTION:

- a. With one drywell air lock door inoperable:
 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours, or lock the OPERABLE air lock door closed and verify that the OPERABLE air lock door remains locked closed every 31 days, except as provided in a.2.
 2. With one air lock door inoperable in OPERATIONAL CONDITION 3, operation may then continue with entry and exit permitted for up to 7 days** provided that an OPERABLE air lock door is verified to be locked closed after each entry and subsequent exit, and an individual is dedicated to assure that both doors in the air lock are not opened simultaneously.
 3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With the drywell air lock inoperable, except as a result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With one inoperable drywell air lock door inflatable seal system air flash pressure instrumentation channel, restore the inoperable channel to OPERABLE status within 7 days or verify air flask pressure to be \geq 75 psig at least once per 12 hours.

* See Special Test Exception 3.10.1.

**The provisions of Specification 3.0.4 are not applicable.

CONTAINMENT SYSTEMS

BASES

3/4.6.1.9 PRIMARY CONTAINMENT PURGE SYSTEM

The 36-inch primary containment purge supply and exhaust isolation valves are required to be closed during plant operation, in order to minimize the quantities of radioactive materials released via the containment purge system, except the primary containment purge lines may be opened for up to 2000 hours per 365 days. Additionally, these valves are limited to 65° travel to full open position.

Leakage integrity tests, with a maximum allowable leakage rate for purge supply and exhaust isolation valves, will provide early indication of resilient material seal degradation and will allow the opportunity for repair before gross leakage develops. The 0.60 La leakage limit shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

3/4.6.1.10 PENETRATION VALVE LEAKAGE CONTROL SYSTEM

The OPERABILITY of the penetration valve leakage control system is required to meet the restrictions on overall containment leak rate assumed in the accident analyses.

3/4.6.2 DRYWELL

3/4.6.2.1 DRYWELL INTEGRITY

Drywell integrity ensures that the steam released for the full spectrum of drywell pipe breaks is condensed inside the primary containment either by the suppression pool or by the primary containment ventilation system unit coolers. By utilizing the suppression pool as a heat sink, energy released to the containment is minimized and the severity of the transient is reduced.

3/4.6.2.2 DRYWELL BYPASS LEAKAGE

The limitation on drywell bypass leakage rate is based on having at least one containment ventilation system unit cooler OPERABLE. It ensures that the maximum leakage which could bypass the suppression pool during an accident would not result in the primary containment exceeding its design pressure of 15.0 psig. The integrated drywell leakage value is limited to 10% of the design drywell leakage rate.

The limiting case accident is a very small reactor coolant system break which will not automatically result in a reactor depressurization. The long term differential pressure created between the drywell and primary containment will result in a significant pressure buildup in the primary containment due to this bypass leakage.

CONTAINMENT SYSTEMS

BASES

3/4.6.2.3 DRYWELL AIR LOCKS

The limitations on closure for the drywell air locks are required to meet the restrictions on DRYWELL INTEGRITY and the drywell leakage rate given in Specifications 3.6.2.1 and 3.6.2.2. The specification makes allowances for the fact that there may be long periods of time when the air locks will be in a closed and secured position during reactor operation. Only one closed door in the air lock is required to maintain the integrity of the drywell. Additionally, the specification makes allowances for the use of the air lock when one of the doors is inoperable. Although use of the drywell air lock with one door inoperable would result in drywell bypass leakage in excess of the 10% of A/\sqrt{k} limit as specified in TS 3.6.2.2, analytic results indicate that the drywell bypass leakage, for the short duration that the OPERABLE door would be open, would be less than the safety analysis requirement of A/\sqrt{k} .

3/4.6.2.4 DRYWELL STRUCTURAL INTEGRITY

This limitation ensures that the structural integrity of the drywell will be maintained comparable to the original design specification for the life of the unit. A visual inspection in conjunction with Type A leakage tests is sufficient to demonstrate this capability.

3/4.6.2.5 DRYWELL INTERNAL PRESSURE

The limitations on drywell-to-containment differential pressure ensure that, during LOCA conditions, the drywell peak pressure of 19.2 psid does not exceed the design pressure of 25.0 psid and the containment peak pressure of 7.6 psig does not exceed the design pressure of 15.0 psig. The maximum external drywell pressure differential is limited to 0.3 psid, well below the 0.58 psid at which suppression pool water will be forced over the wier wall and into the drywell. The limit of 1.2 psid for initial positive drywell-to-containment differential pressure will limit the drywell pressure to 19.2 psid which is less than the design pressure and is consistent with the safety analysis.

3/4.6.2.6 DRYWELL AVERAGE AIR TEMPERATURE

The limitation on drywell average air temperature ensures that peak drywell temperature does not exceed the design temperature of 330 °F during LOCA conditions and is consistent with the safety analysis.

3/4.6.2.7 DRYWELL VENT AND PURGE

The 24-in. drywell purge supply and exhaust isolation valves are required to be sealed closed during plant operation, since these valves have not been demonstrated capable of closing during a LOCA or steam line break accident. To provide assurance that the 24-inch valves cannot be opened inadvertently, they are sealed closed in accordance with Standard Review Plan Section 6.2.4 by methods that include mechanical devices to seal or lock the valve closed or prevent power from being supplied to the valve operator.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 58 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 12, 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 modify Technical Specification (TS) 3.6.2.3 "Drywell Air Locks" to allow the use of the drywell air lock in Operational Condition 3 for up to 7 days with one of the two air lock doors inoperable. On two separate occasions, GSU had requested waivers of compliance from TS 3.6.2.3 when the drywell air lock was declared inoperable due to failure of the inner air lock door seal to meet leakage criteria. While the door was inoperable, GSU found it necessary to enter the drywell while the plant was in hot standby for the purpose of locating and repairing leakage from the reactor coolant system. This is not in compliance with the TS which requires that the operable air lock door be locked closed or the plant be in cold shutdown. The NRC staff concluded that relief from this requirement would not result in undue risk to the health and safety of the public and granted temporary waivers of compliance on February 17, 1989 and again on December 12, 1990, which allowed entry into the drywell for 48 hours while in Operational Condition 3. As a condition of the second waiver of compliance, GSU agreed to submit a request for a permanent change to the TS.

2.0 EVALUATION

Technical Specification 3.6.2.3 ACTION a. currently requires that if one of the drywell air lock doors becomes inoperable, the operable door must be locked closed within 24 hours and operation may continue providing the operable door is verified to be locked closed once every 31 days. The purpose of this requirement is to maintain the integrity of the drywell and avoid bypassing large amounts of radioactive steam or air to the containment in the event of a Loss-of-Coolant Accident (LOCA) inside the drywell. As a result of this requirement, the plant must be brought to a cold shutdown whenever a drywell air lock is inoperable and personnel must enter for maintenance work or to repair the inoperable air lock door. Shutting down and then restarting the reactor places extra thermal transients on the plant. In addition, any work which involves the identification of reactor coolant system leaks can be performed much more effectively when the reactor is at rated pressure.

The safety analysis for drywell bypass leakage assumes a 1.0 square foot (ft²) opening and a small break LOCA in the drywell at a pressure differential of 3 pounds per square inch differential (psid). An opening of 1.0 ft² would result in a flow rate of approximately 40,110 standard cubic feet per minute (SCFM). This is the design capability of the Mark III containment for steam bypass from the drywell to the suppression pool air volume as per the Standard Review Plan Section 6.2.1.1.c. The allowable drywell bypass leakage limit specified in the TS is 10 percent of the containment capability or 4011 SCFM. While the operable door is open for essential passage through the air lock, drywell integrity depends upon the inoperable door seal. The calculated bypass flow, assuming the operable door is open and both inoperable door seals are deflated, is 12,530 SCFM. Therefore, the worst case leakage is greater than the TS limit, but well within the safety analysis assumption. The proposed amendment would allow the air lock to be used only after the reactor is subcritical (Operational Condition 3) as opposed to the safety analysis assumption in which the reactor is in normal operation and must first scram as a result of high drywell pressure. Thus, the stored energy would be less and reactor depressurization would occur sooner than assumed in the safety analysis. Finally, the drywell unit coolers, which were not taken credit for in the safety analysis, would be in operation during entries into the drywell and would significantly reduce drywell pressure and thus drywell bypass leakage. Additional actions in the proposed amendment would help minimize the total bypass leakage. These consist of assigning an individual to assure that both doors in the air lock are not open simultaneously and verifying that the operable air lock door is locked after each entry and subsequent exit.

The NRC staff has reviewed the licensee's submittal and has found that access through the drywell air lock for short periods of time when one of the air lock doors is inoperable does not pose an additional safety hazard. Based on its evaluation, the staff also finds that the proposed change is in accordance with the Standard Review Plan Section 6.2.1.1.c. Therefore, the proposed addition to ACTION a. of TS 3.6.2.3 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 20040). 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: Donna Skay, PD IV-2

Date: June 3, 1991