



**GULF STATES UTILITIES COMPANY**

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August 2, 1985  
RBG - 21773  
File No. G9.5

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1  
Docket No. 50-458

Enclosed for your review is Gulf States Utilities Company's proposed revisions to the River Bend Station Technical Specifications. These changes as identified in Enclosures 1 and 2 are editorial comments or typographical errors that were noted in reviewing the July 24, 1985 River Bend Station "FINAL DRAFT."

Sincerely,

J. E. Booker  
Manager-Engineering  
Nuclear Fuels & Licensing  
River Bend Nuclear Group

JEB/WJR/JEP

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ENCLOSURE 1

<u>Page No.</u>		<u>Description/Justification</u>
vi	Typo	Change page number to 3/4 3-107 for Section 3/4.3.9.
xiv	Editorial	Delete the words "Drywell and" under Section 3/4.6.1 to be consistent with 3/4.6.1.9.
xx	Typo	Change page number to 6-19 for Section 6.9.2.
	Typo	Change page number to 6-19 for Section 6.10.
xxi	Typo	Change page number to 6-22 for Section 6.13.
	Typo	Change page number to 6-23 for Section 6.15.
3/4 3-39	Typo	Change Footnote ** instrument zero level to EL 98'6" not EL 96'6".
3/4 3-62	Typo	Change Item 5.a (LISN602B) to 18.00" not 18,00".
3/4 3-99	Editorial	Change the word "is" to "are" in Footnote *.
3/4 3-105	Editorial	Add the designation "(NBS)" in Table Notation (2).
3/4 5-3	Typo	Change the word "useage" to "usage" in Action g.
3/4 6-2	Editorial	In GSU's review of editorial consistency between technical specification sections, Specification 3/4.6.1.2 did not contain the standard footnote referencing back to Section 3/4.10.1. Section 3/4.3.10.1 references and applies to several specifications (including 3/4.6.1.2). Add the Footnote # to the APPLICABILITY and add "# See

Special Test Exception 3.10.1" to the footnotes.

3/4 6-64	Editorial	The word "be" should be added to SR 4.6.6.3.a.1.
3/4 8-15	Editorial	Change the number "120" to "119" in SR 4.8.2.1.d.2.C. As submitted in GSU letter dated July 15, 1985 (RBG-21543), the HPCS battery discharge profile from 1-120 minutes (119 minutes total) is equal to 15.4 amps.
B 3/4 8-3	Typo	Change the number "4.8.4.2.a.3" to "4.8.4.1.a.3" for Section 3/4.8.4.
5-2, 5-4	Editorial	These two figures should be swapped. (i.e., Figure 5.1.1-1 before 5.1.2-1 and then 5.1.3-1.)

ENCLOSURE 2

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EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
D. <u>LOSS OF POWER</u> (continued)		
2. <u>Division III</u>		
a. 4.16 kv Standby Bus Undervoltage (Sustained Undervoltage)	a. 4.16 kv Basis - 3045 $\pm$ 153 volts	3045 $\pm$ 214 volts
	b. 3 $\pm$ 0.3 sec. time delay	3 $\pm$ 0.33 sec. time delay
b. 4.16 kv Standby Bus Undervoltage (Degraded Voltage)	a. 4.16 kv Basis - 3777 $\pm$ 30 volts	3777 $\pm$ 75 volts
	b. 60 $\pm$ 6 sec. time delay (w/o LOCA)	60 $\pm$ 6.6 sec. time delay
	c. 3 $\pm$ 0.3 sec. time delay (w/LOCA)	3 $\pm$ 0.33 sec. time delay

\*See Bases Figure B 3/4 3-1.

\*\* (Bottom of CST is at EL 95'1".) The levels are measured from the instrument zero level of EL 96'6".

# (Bottom of suppression pool is at EL 70'.) The levels are measured from the instrument zero level of EL 89'9".

## These are inverse time delay voltage relays or instantaneous voltage relays with a time delay. The voltages shown are the maximum that will not result in a trip. Lower voltage conditions will result in decreased trip times.

TABLE 3.3.6-2

CONTROL ROD BLOCK INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1. <u>ROD PATTERN CONTROL SYSTEM</u>		
a. Low Power Setpoint	27.5 $\pm$ 3% of RATED THERMAL POWER	27.5 $\pm$ 7.5% of RATED THERMAL POWER
b. High Power Setpoint	62.5 $\pm$ 3% of RATED THERMAL POWER	62.5 $\pm$ 7.5% of RATED THERMAL POWER
2. <u>APRM</u>		
a. Flow Biased Neutron Flux - Upscale	$\leq 0.66 W + 42\%^*$	$\leq 0.66 W + 45\%^*$
b. Inoperative	NA	NA
c. Downscale	$\geq 5\%$ of RATED THERMAL POWER	$\geq 3\%$ of RATED THERMAL POWER
d. Neutron Flux - Upscale Startup	$\leq 12\%$ of RATED THERMAL POWER	$\leq 14\%$ of RATED THERMAL POWER
3. <u>SOURCE RANGE MONITORS</u>		
a. Detector not full in	NA	NA
b. Upscale	$\leq 1 \times 10^5$ cps	$\leq 1.6 \times 10^5$ cps
c. Inoperative	NA	NA
d. Downscale	$\geq 0.7$ cps	$\geq 0.5$ cps**
4. <u>INTERMEDIATE RANGE MONITORS</u>		
a. Detector not full in	NA	NA
b. Upscale	$\leq 108/125$ division of full scale	$\leq 110/125$ division of full scale
c. Inoperative	NA	NA
d. Downscale	$\geq 5/125$ division of full scale	$\geq 3/125$ division of full scale
5. <u>SCRAM DISCHARGE VOLUME</u>		
a. Water Level-High - LISN602A	$\leq 18.00''$	$\leq 21.12''$
LISN602B	$\leq 18.00''$	$\leq 21.60''$
6. <u>REACTOR COOLANT SYSTEM RECIRCULATION FLOW</u>		
a. Upscale	$\leq 108\%$ of rated flow	$\leq 111\%$ of rated flow

\*The Average Power Range Monitor rod block function is varied as a function of recirculation loop flow (W). The trip setting of this function must be maintained in accordance with Specification 3.2.2.

\*\*Provided signal to noise ratio is  $\geq 2$ , otherwise setpoint of 3 cps and allowable 1.8 cps.

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATIONLIMITING CONDITION FOR OPERATION

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3.3.7.11 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3.7.11-1 shall be OPERABLE with their alarm/trip\* setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the ODCM.

APPLICABILITY: As shown in Table 3.3.7.11-1.

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip\* setpoint less conservative than required by the above Specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.11-1. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION or explain in the next Semiannual Radioactive Effluent Release Report why this inoperability was not corrected within the time specified.
- c. The provisions of Specifications 3.0.3 and 3.0.4, are not applicable.

SUREVEILLANCE REQUIREMENTS

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4.3.7.11 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3.7.11-1.

\*The alarm/trip setpoints for the Explosive Gas Mixture in the Main Condenser Offgas Treatment System ~~is~~ <sup>are</sup> set in accordance with Specification 3.11.2.6.

TABLE NOTATIONS

- \* At all times.
- \*\* During main condenser offgas treatment system operation.
- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
  - a. Instrument indicates measured levels above the alarm setpoint.
  - b. Circuit failure.
  - c. Instrument indicates a downscale failure.
  - d. Instrument controls not set in operate mode.
- (2) The initial CHANNEL CALIBRATION shall be performed using one or more of (NBS) the reference standards certified by the National Bureau of Standards or using standards that have been obtained from suppliers that participate with NBS in measurement assurance activities. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
- (3) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
  - a. One volume percent hydrogen, balance nitrogen, and
  - b. Four volume percent hydrogen, balance nitrogen.



LIMITING CONDITION FOR OPERATION (Continued)ACTION: (Continued)

- d. For ECCS divisions I and II, provided that ECCS division III is OPERABLE:
  - 1. With LPCI subsystem "A" and either LPCI subsystem "B" or "C" inoperable, restore at least the inoperable LPCI subsystem "A" or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
  - 2. With the LPCS system inoperable and either LPCI subsystem "B" or "C" inoperable, restore at least the inoperable LPCS system or inoperable LPCI subsystem "B" or "C" to OPERABLE status within 72 hours.
  - 3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours\*.
- e. For ECCS divisions I and II, provided that ECCS division III is OPERABLE and divisions I and II are otherwise OPERABLE:
  - 1. With one of the above required ADS valves inoperable, restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to  $\leq 100$  psig within the next 24 hours.
  - 2. With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to  $\leq 100$  psig within the next 24 hours.
- f. With an ECCS discharge line "keep filled" pressure alarm instrumentation channel inoperable, perform Surveillance Requirement 4.5.1.a.1 at least once per 24 hours.
- g. In the event an ECCS system is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted within 90 days to the Commission, pursuant to Specification 6.9.2, describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

\*Whenever two or more RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.



## CONTAINMENT SYSTEMS

**FINAL DRAFT**

### PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING

#### LIMITING CONDITION FOR OPERATION

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3.6.1.2 PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING shall be maintained.

APPLICABILITY: Operational Condition\* #

#### ACTION:

Without PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING, suspend handling of irradiated fuel in the primary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.2 PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING shall be demonstrated:

- a. Within 24 hours prior to entering and at least once per 24 hours during Operational Condition\* by verifying that all primary containment penetrations required to be closed during accident conditions are closed by hatches, valves, blind flanges, or deactivated automatic valves secured in position.
- b. By verifying each containment air lock is in compliance with the requirements of Specification 3.6.1.4.

\*When handling irradiated fuel in the primary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

# See Special Test Exception 3.10.1.

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## CONTAINMENT SYSTEMS

# FINAL DRAFT

### PRIMARY CONTAINMENT/DRYWELL HYDROGEN IGNITION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.6.6.3 The primary containment/drywell hydrogen ignition system, consisting of two independent primary containment/drywell hydrogen ignition subsystems each consisting of ten circuits, shall be OPERABLE with no more than two igniter assemblies inoperable per circuit and no more than five igniter assemblies inoperable per subsystem and no adjacent igniter assemblies inoperable.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2

ACTION:

- a. With one primary containment/drywell hydrogen ignition subsystem and/or circuit inoperable, restore the inoperable subsystem and/or circuit to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With any adjacent igniter assemblies inoperable, restore all igniter assemblies adjacent to an inoperable igniter assembly to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.6.3 The primary containment/drywell hydrogen ignition system shall be demonstrated OPERABLE:

- a. At least once per 184 days by energizing all the igniter assemblies and performing current/voltage measurements of each circuit.
  1. If more than <sup>be</sup> three igniter assemblies on either subsystem are determined to be inoperable, Specification 4.6.6.3.a shall be performed at least once per 92 days until this condition no longer exists.
  2. If more than one igniter assembly on each subsystem are determined to be inoperable, determine if the inoperable igniter assemblies are adjacent.
- b. At least once per 18 months, by energizing each igniter assembly, verifying a surface temperature of at least 1700°F for each of the accessible igniters and verifying by measurement sufficient current/voltage to develop 1700°F surface temperature for those igniter assemblies in inaccessible areas.

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

- b) Division II
  - ≥ 502 amperes for the first 60 seconds
  - ≥ 261 amperes for the next 9 minutes
  - ≥ 327 amperes for the next 60 seconds
  - ≥ 261 amperes for the next 228 minutes
  - ≥ 327 amperes for the last 60 seconds
- c) Division III
  - ≥ 53.2 amperes for the first 60 seconds
  - ≥ 15.4 amperes for the next ~~120~~ minutes
- e. At least once per 60 months by verifying during shutdown that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test.
- f. At least once per 18 months, during shutdown, performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Containment electrical penetrations, penetration conductors, main control room lighting, and RPS alternate source of power are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of the overcurrent protection circuit breakers and/or motor starters by periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers and/or motor starters provide assurance of breaker and starter reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker and/or starter. Each manufacturer's molded case and metal case circuit breakers and/or motor starters are grouped into representative samples which are tested on a rotating basis to ensure that all breakers and/or starters are tested. If a wide variety exists within any manufacturer's brand of circuit breakers and/or motor starters, it is necessary to divide that manufacturer's breakers and/or starters into groups and treat each group as a separate type of breaker or starter for surveillance purposes.

Specific surveillance tests on the bypass circuits of motor operated valves' thermal overload protection is not required at River Bend because the circuits are integral with the starting circuits of the motor operated valves and are therefore tested during functional tests of the valves. For the motor operated valve thermal overloads not bypassed, the thermal overloads are tested under Specification 4.8.4.2 a.3. These surveillance requirements are in accordance with RG 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

The reactor protection system (RPS) electric power monitoring assemblies provide redundant protection to the RPS, and to other systems that receive power from the RPS buses, by acting to disconnect the RPS from the power source circuits in the presence of an electrical fault in the power supply.

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