



GULF STATES UTILITIES COMPANY

POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704

AREA CODE 409 338 6631

February 13, 1984
RBG- 17,052
File No. G9.5, G9.8.6.2

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 - Units 1 & 2
Docket No. 50-458/50-459

Enclosed are Gulf States Utilities Company's responses to the informal questions raised by reviewers from the Quality Assurance Branch (QUAB) based upon the December 22, 1983 docketed letter to Mr. Denton from Mr. Booker. Attachment 1 summarizes the issues discussed via telephone conversation on January 25, 1984 and references the response provided. Enclosure 1 contains the changes to the Final Safety Analysis Report (FSAR) which will be incorporated in the next amendment.

Sincerely,

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

JEB
JEB/ERG/JWL/je

Attachments

Enclosure

8402220490 840213
PDR ADOCK 05000458
A PDR

*13001
1/40*

Attachment 1

Item No. 1 Note 34

Note 34 should be applied to the Diesel Generator Auxiliaries Package identified as Item b.1.XXXIV.(a) in Question 260.23.

See revised Note 34 and FSAR Table 3.2-1, Item XXVII.

Item No. 2 Governor, Voltage Regulator, and Excitation System

The Diesel Generator Auxiliaries Package specifically identifies the governor, voltage regulator, and excitation system; however, Table 3.2-1 does not discuss them.

FSAR Table 3.2-1, Item XXVII (Electrical Modules with Safety Functions) includes these three items, see revised Item XXVII.

Item No. 3 Note 33

Note 33 should be revised to include appropriate QA Control.

See revised Note 33.

Item No. 4 Fabricated Supports

Reviewers from the Mechanical Engineering Branch (MEB) indicated both small bore piping and instrument tubing are using fabricated supports and as such should be included in Table 3.2-1 and referenced to Note 33.

See revised Notes 31 and 39.

Item No. 5 Radioactive Monitoring Equipment

The Process (Item VIII) and Area (Item XL) Radioactivity Monitoring Equipment should reference Note 34.

See revised Items VIII and XL.

Item No. 6 Emergency Lighting Battery Packs

The Emergency Lighting Battery Packs (Item XXXIV.12) should reference Note 34.

See revised Item XXXIV.12.

Enclosure 1

RBS PSAP

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
<u>V. Standby Liquid Control System</u>								
1. Standby liquid control tank	2	I	B	E	C	GE	GE	
2. Pump	2	I	B	E	C	GE	V	
3. Pump Motor	2	I	B	E	C	GE	V	
4. Valves, explosive	1	I	B	E	C	GE	V	
5. Valves, isolation and within	1	I	B	E	C	P	V	
6. Valves, beyond isolation valves	2	I	B	E	C	P	V	
7. Piping, within isolation valves	1	I	B	E	C	P	S	(12)
8. Piping, beyond isolation valves	2	I	B	E	C	P	S	(12)
9. Electrical modules, with safety function	2	I	B	E	C	GE	GE	
10. Cable, with safety function	2	NA	B	E	C	P	S	
<u>VI. Neutron Monitoring System</u>								
1. Piping, TIP	NNS	NA	S	E	D	GE	GE	
2. Drive mechanism, indexing mechanism, multimax connector, purge air control unit, source range monitor (SRM), proximity switch, motor modules	NNS	NA	S	E	C	GE	GE	
3. Cable, IPM, SRM, PRMs	2	NA	B	E	-	GE	V	
<u>VII. Reactor Protection System</u>								
1. Electrical modules	2	I	B		C,P,T	GE	GE	
2. Cable	2	NA	B		-	P	V	
<u>VIII. Process Radiation Monitors</u>								
1. Main steam line monitors and related electrical modules	2	I	B	E	A,C	GE	GE	(34)
2. Main plant exhaust (gas extended range), fuel building exhaust, reactor building annulus ventilation, main control room air intakes, containment atmosphere, drywell atmosphere, RHP heat exchange service water, containment purge isolation, and related electrical modules	2	I	B	E	A,C,F,M,R,T	P		(35)

RBS PSAR

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
8. Piping, containment isolation	2	I	B	E	C,A	P	S	
9. Valves, containment isolation	2	I	B	E	C,A	P	V	
<u>XXV. Normal Service Water System</u>								
1. Pumps	NNS	NA	S	N	O	P	V	
2. Pump Motors	NNS	NA	S	N	O	P	V	
3. Valves, isolation from standby service water	3	I	E	E	A,R,S	P	V	
4. Piping, isolation from standby service water	3	I	B	E	A,R,S	P	S	
5. Piping, other	NNS	NA	S	E,N	A,O,R,S	P	S	
6. Valves, other	NNS	NA	S	E,N	A,O,R,S	P	V	
7. Other equipment	NNS	NA	S	E,N	A,O,R,S	P	V	
<u>XXVI. Instrument and Service Air Systems</u>								
1. Vessels, accumulators, supporting safety-related systems	3	I	E	E	A,C,D,S	P	S	(19)
2. Piping in lines between accumulators and safety-related systems	3	I	B	E	A,C,D,S	P	S	(19)
3. Valves in lines between accumulators and safety-related systems	3	I	B	E	A,C,D,S	P	V	(19)
4. Piping, containment isolation	2	I	E	E	A,C,D	P	S	
5. Valves, containment isolation	2	I	E	E	A,C,D	P	V	
6. Electrical modules with safety function	2	I	E	E	A,C,D,R	P	S	(19)
7. Cables with safety function	2	NA	B	E	-	P	S	(19)
8. Piping, other	NNS	NA	B	E,N	M	P	S	
9. Valves, other	NNS	NA	B	E,N	M	P	V	
10. Other equipment	NNS	NA	B	E,N	M	P	V	
<u>XXVII. Diesel Generator Systems</u>								
1. Diesel-generators								
a. HPCS diesel-generator	2	I	E	E	S	GE	V	
b. Standby diesel-generator	3	I	E	E	S	P	V	
2. Electrical modules with safety functions								(34)
a. HPCS diesel-generator	2	I	E	E	P,S	GE	GE	
b. Standby diesel-generator	3	I	B	E	A,R,S	P	V	
3. Cable, with safety functions	3	NA	E	E	-	P	S	

Insert for Table 3.2-1, Page 9/19

(including the governor, voltage regulator, and exciter systems.)

RBS PSAR

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
4. Fuel Oil Storage and Transfer System								
a. Fuel oil storage tanks	3	I	B	E	S	P	S	
b. Fuel oil day tanks	3	I	B	E	S	P	S	
c. Pumps								
HPCS diesel generator	3	I	B	E	S	GE	GE	
Standby diesel generator	3	I	E	E	S	P	V	
d. Pump motors	3	I	B	E	S	P	V	
e. Piping	3	I	B	E	S	P	S	
f. Valves	3	I	B	E	S	P	V	
5. Cooling Water System - HPCS Diesel-Generator								(34) (8)
a. Water expansion tank	3	I	B	E	S	GE	V	
b. Heat exchanger	3	I	B	E	S	GE	V	
c. Oil cooler	3	I	B	E	S	GE	V	
d. Pumps	3	I	B	E	S	GE	V	
e. Piping and valves, integral with engine	NNS	I	S	E	S	GE	V	
f. Piping, other	3	I	B	E	S	P	S	
g. Valves, other	3	I	B	E	S	P	V	
h. Flexible connections	3	I	B	E	S	GE	V	
6. Cooling Water System - Standby Diesel-Generator								(34) (8)
a. Standpipe	3	I	B	E	S	P	V	
b. Heat exchanger	3	I	B	E	S	P	V	
c. Lube oil cooler	3	I	B	E	S	P	V	
d. Pump	3	I	B	E	S	P	V	
e. Piping and valves, integral with engine	NNS	I	S	E	S	P	V	
f. Piping, other	3	I	B	E	S	P	S	
g. Valves, other	3	I	B	E	S	P	V	
7. Starting System - HPCS Diesel-Generator								(34) (8)
a. Air receivers	3	I	B	E	S	GE	V	
b. Air compressors	3	I	B	E	S	GE	V	
c. Aftercooler, air to air	3	I	B	E	S	GF	V	
d. Piping and valves, integral with engine	NNS	I	S	E	S	GE	V	
e. Piping, other	3	I	B	E	S	P	S	
f. Valves, other	3	I	B	E	S	P	V	
g. Flexible connections	3	I	B	E	S	GE	V	
8. Starting System - Standby Diesel-Generator								(34) (8)
a. Air receivers	3	I	B	E	S	P	V	
b. Air compressors	NNS	NA	S	E	S	P	V	

RBS FSAR

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
c. Aftercoolers	NNS	NA	S	E	S	P	V	
d. Air desiccant dryers	NNS	NA	S	E	S	P	V	
e. Piping and valves, integral with engine	NNS	I	S	E	S	P	V	
f. Piping, between engine and air receivers	3	I	B	E	S	P	S	
g. Valves, between engine and air receivers	3	I	B	E	S	P	V	
h. Piping, other	NNS	NA	S	E	S	P	S	
i. Valves, other	NNS	NA	S	E	S	P	V	
j. Flexible connections	3	I	E	E	S	P	V	
9. Lubrication System - HPCS Diesel-Generator								(34)
a. Pumps	3	I	B	E	S	GE	V	
b. Lube oil cooler	3	I	B	E	S	GE	V	
c. Sump pan	3	I	B	E	S	GE	V	
d. Strainer	3	I	B	E	S	GE	V	
e. Filter	3	I	B	E	S	GE	V	
f. Piping and valves, integral with engine	NNS	I	S	E	S	GE	V	
g. Piping, other	3	I	B	E	S	P	S	
h. Valves, other	3	I	B	E	S	P	V	
10. Lubrication System - Standby Diesel-Generator								(34)
a. Lube oil pump (engine-driven)	NNS	I	S	E	S	P	V	
b. Before and after pump	3	I	B	E	S	P	V	
c. Lube oil cooler	3	I	B	E	S	P	V	
d. Sump tank	NNS	I	S	E	S	P	V	
e. Strainers	NNS	I	S	E	S	P	V	
f. Filters	3	I	B	E	S	P	V	
g. Piping and valves, integral with engine	NNS	I	S	E	S	P	V	
h. Piping, other	3	I	B	E	S	P	S	
i. Valves, other	3	I	B	E	S	P	V	
11. Combustion Air Intake and Exhaust System - HPCS Diesel-Generator								
a. Intake and exhaust silencers	3	I	B	E	S	GE	V	
b. Intake air filter	3	I	B	E	S	GE	V	
c. Expansion joints	3	I	B	E	S	GE	V	
d. Piping	3	I	B	E	S	P	S	

EBS PSAR

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
8. Turbine valve, turbine control valve, turbine bypass valves, and the main steam leads from the turbine control valve to the turbine casing	NNS	NA	S	N	T	P	V	(10, 21, 22, 23)
9. Feedwater system components beyond the feedwater shutoff valve	NNS	NA	S	E, N	A, T	P	S	(10) 2
<u>XXXIII. Condensate Makeup and Drawoff System</u>								
1. Condensate storage tank	NNS	NA	S	E	O	P	V	(14)
2. Piping, containment isolation	2	I	B	E	A, C, F	P	S	
3. Valves containment isolation	2	I	B	E	A, C, F	P	V	
4. Other piping	NNS	NA	S	E	A, C, F, D, T, M, W, O	P	S	
5. Other valves and components	NNS	NA	S	E	A, C, F, D, T, M, W, O	P	V	
<u>XXXIV. Auxiliary AC Power System (Class 1E)</u>								
1. 4160-volt switchgear	2	I	B	E	A, F, R	P	V	
2. 480-volt load centers	2	I	B	E	A, R	P	V	
3. 480-volt motor control centers	2	I	B	E	A, F, R, M	P	V	
4. 4160/480-volt transformers	2	I	B	E	A, R, M	P	V	
5. 120-volt instrument (vital) bus	2	I	B	E	R	P	V	
6. Protective relays for Items 1 through 5, above	2	I	B	E	A, F, R, M	P	V	
7. Cables (including splices) with safety function	2	NA	B	E	-	P	V	
8. Terminal blocks	2	I	B	E	-	P	V	
9. Conduits	NNS	NA	S	E	-	P	-	
10. Cable trays, tray supports, and conduit supports	2	I	B	E	-	P	V, S	(33)
11. Containment electrical penetrations and protection	2	I	B	E	C	P	V	
12. Emergency lighting battery packs	NNS	NA	S	E, N	-	P	V	(34)
13. Raceway fire stops and seals	NNS	NA	S	E, N	-	P	V	(33)

11

11

RBS FSAR

TABLE 3.2-1 (Cont)

	Safety ⁽¹⁾ Class	Seismic ⁽²⁾ Category	Quality ⁽³⁾ Assurance Category	Tornado ⁽⁴⁾ Protection Designation	Location ⁽⁵⁾	Scope ⁽⁶⁾ of Supply	Design ⁽⁷⁾ Detail	Notes
12. Dampers, other	NNS	NA	S	E	F	P	V	
13. Ductwork, other	NNS	NA	S	E	F	P	S	
XL. <u>Area Radiation Monitoring System</u>								
								(34)
1. Containment post-accident area monitor and drywell post-accident area monitor	2	I	B	E	C, D	P	V	
2. Cable, monitors with safety function	NNS	NA	S	E	C	P	V	
3. All other components	NNS	NA	S	E	A, F, W, T, R	P	V	
XLI. <u>Leak Detection System</u>								
1. Temperature element	2	I	B	E	C, D	GE	V	
2. Temperature switch	2	I	B	E	C, D	GE	V	
3. Differential temperature switch	2	I	B	E	C, D	GE	V	

TABLE 3.2-1 (Cont)

(27) The radwaste building is not tornado-protected above grade.

(28) The structure is designed in accordance with the seismic analysis and design approach as described in Sections 3.7.2.17A and 3.8.4.4.9, respectively.

(29) The PVLCS compressor assembly includes the compressor, filter, moisture separator, aftercooler, and accumulator. All these components are supplied as a single skid-mounted unit.

(30) The cooling coils for the containment unit coolers are Safety Class 3.

and supports (31) Requirements for instrument and pneumatic tubing classified as Safety Class 3 are shown in Table 3.2-8.

(32) The classification of a structure described herein also applies to all major structural components of that structure.

(33) Systems and components whose failure could adversely affect safety-related systems or components are analyzed to seismic Category I requirements.

INSERT 1
INSERT 2

(34) The operational QA program ^{are} is applied to the following nonsafety-related items:

- a. Radioactivity sampling (air, surfaces, liquids)
- b. Radioactivity contamination measurement and analysis equipment
- c. Personnel monitoring equipment
- d. Instrument storage, calibration, and maintenance program
- e. Decontamination facilities, personnel, and equipment
- f. Respiratory protection equipment (including testing)
- g. Contamination control
- h. Equipment and other items associated with the emergency support facilities
- i. Site grading, including maintenance of the West Creek fabriform channel
- j. Activities affecting reactor internal structures

INSERT 3

(35) Effluent monitors meet the environmental qualification and quality assurance requirements of Regulatory Guide 1.97, Revision 2.

Insert 1 for Table 3.2-1, Page 19a/19

and controlled in accordance with the pertinent requirements of the operational QA program.

Insert 2 for Table 3.2-1, Page 19a/19

pertinent provisions of the

Insert 3 for Table 3.2-1, Page 19a/19

- h. Diesel generator auxiliaries including the lube system, jacket cooling, air start system, governor, voltage regulator, and excitation systems

TABLE 3.2-1 (Cont)

- (36) Valve actuators for active safety-related valves are subject to the same quality assurance requirements as the valve.
- (37) The safety-related instrumentation and controls described in Sections 7.1 through 7.6 are subject to the requirements of Appendix B, Quality Assurance Program, and Class 1E requirements (TEEE 279). However, post-accident monitoring instrumentation discussed in Section 7.5 has design and qualification criteria as designated in Table 7.5-2 (e.g., Category 1, 2, 3 or Regulatory Guide 1.97).
- (38) The sample panel and cooler rack are seismically supported. The instruments are not.
- (39) Supports for components designated as Quality Assurance (QA) Category B are also classified as QA Category B.

11