

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

Report: 50-458/82-12

Docket: 50-458

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

Facility Name: River Bend, Unit 1

Appraisal Period: September 1, 1981, through August 31, 1982

Appraisal Completion Date: October 13, 1982

Licensee Meeting: November 18, 1982

SALP Board: G. L. Madsen, Chief, Reactor Project Branch 1
W. A. Crossman, Chief, Reactor Project Section B
R. L. Perch, NRR Project Manager
R. L. Brown, Senior Resident Inspector
L. E. Martin, Reactor Inspector
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Reviewed by: W. A. Crossman 10/27/82
W. A. Crossman, Chief Date
Reactor Project Section B

Approved by: G. L. Madsen 10/27/82
G. L. Madsen, Chief Date
Reactor Project Branch 1
(SALP Board Chairman)

I. Introduction

Systematic Assessment of Licensee Performance (SALP) is an NRC staff effort to collect available observations on an annual basis and evaluate licensee performance based on those observations. The SALP process is oriented toward furthering NRC's understanding of the manner in which: (a) the licensee management directs, guides, and provides resources for assuring plant safety; and (b) such resources are used and applied. The integrated assessment is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to licensee management.

II. Criteria

The assessment of licensee performance is implemented through the use of seven evaluation criteria. These criteria are applied to each functional area that is applicable to the facility activities (construction, preoperational, or operational) for the categorization of licensee performance in these areas.

One or more of the following evaluation criteria are used to assess each applicable functional area.

1. Management involvement in assuring quality
2. Approach to resolution of technical issues from safety standpoint
3. Responsiveness to NRC initiatives
4. Enforcement history
5. Reporting and analysis of reportable events
6. Staffing (including management)
7. Training effectiveness and qualification

Attributes associated with the above evaluation criteria from the guidance for the SALP Board for categorization of each functional area in one of three categories. Performance categories are defined as follows:

Category 1. Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used such that a high level of performance with respect to operational safety or construction is being achieved.

Category 2. NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective

such that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used such that minimally satisfactory performance with respect to operational safety or construction is being achieved.

III. Summary of Results

<u>Functional Areas</u>	<u>1982 Category</u>	<u>1981 Category</u>
1. Soils and Foundations	NA	1
2. Containment and other Safety-Related Structures	2	2
3. Piping Systems and Supports	2	2
4. Safety-Related Components	2	NA
5. Support Systems	NA	NA
6. Electrical Power Supply and Distribution	2	2
7. Instrumentation and Control Systems	NA	NA
8. Licensing Activities	2	1
9. Corrective Action and Reporting	2	3
10. Management Control	2	NA

IV. Performance Analyses

The SALP Board obtained assessment data applicable to the appraisal period of September 1, 1981 through August 31, 1982. The data for the River Bend Station (RBS) was tabulated and analyzed and a performance analysis was developed for each of the seven functional areas.

The SALP Board met on October 13, 1982, to review the performance analyses and supporting data and to develop the SALP Board Report.

Functional Area Analysis

1. Soils and Foundations

Work in this functional area has been completed and no assessment was made.

2. Containment and Other Safety-Related Structures

The quality index for this functional area which includes the free-standing steel containment vessel (with penetrations), structural steel, reinforcement steel, and concrete (including concrete lab), indicates an acceptance rate of approximately 95%.

Five 50.55(e) Construction Deficiency Notices (CDN) were reported by the licensee during the assessment period. The deficiencies, "Inadequate End Gap of a Beam Between the Drywell Wall and Primary Shield Wall" and "Unsatisfactory Inspection" were site related. The remaining three CDN's are supplier related.

Two deviations related to "Deviation From Cleaning Practices" and "Substitution of Reinforcing Steel" and one violation, "Failure to Follow Storage Procedures for Fasteners," were identified during this assessment period.

Training of personnel (craftsmen and field quality control (FQC)) and surveillance has had a marked influence on the quality of this function.

The NRC inspectors expended 308 inspection-hours in this functional area.

The Board assessed the licensee's performance to be Category 2 in this functional area.

3. Piping Systems and Supports

Approximately 12% of the safety-related piping system welds have been completed. The reject rate of linear inches welded in this system is between 2% and 3%.

During the assessment period, approximately 4% of the pipe hangers, supports, and restraints have been installed with an acceptance rate of 96%.

The improvement in welding since the last assessment period can be attributed to a combination of: added training, radiography of welders performance qualification coupons, added radiography of welds, closer surveillance during welding, and personnel attitude.

During the assessment period, one violation, "Failure to Follow Welding Procedures," was identified. Six CDN's were transmitted to the NRC; three dealing with welding, two with the installation of pipe supports, and one dealing with radiography.

The NRC inspectors expended 270 inspection-hours in this functional area.

The Board assessed the licensee's performance to be Category 2 in this functional area.

4. Safety-Related Components Including Vessels, Internals, and Pumps

Installation of the reactor pressure vessel (with internals) was completed during this assessment period. It presently is in the stored in-place status.

Other large Category I components (e.g., reactor recirculation pumps, control building liquid chillers, LPCS pumps, chilled water pumps, heat exchangers, etc.) have been placed, aligned, welded, etc., but motors or piping have not been connected.

Review of the limited records and observation of work practices reveal conformance with the specific requirements for handling, installation, and protection.

No violations or deviations were identified in this functional area. The licensee issued eight CDN's during this period. Five CDN's dealt with diesel generators, two with valves, and one with residual heat removal heat exchanger supports.

The inspection involved 30 inspection-hours for this functional area.

A rating of Category 2 was made by the Board in this functional area.

5. Support Systems Including HVAC, Radwaste, and Fire Protection

There was limited activity in the seismic Category I portion of this functional area during the assessment period; therefore, this area was not evaluated.

6. Electrical Power Supply and Distribution

Approximately 5% of Category I electrical equipment (e.g., transformers, switchgear, MCC's, PGCC, etc.) is in place, but are being maintained as stored in-place status.

No Class 1E cable has been installed. However, Stone and Webster (S&W) has installed Category 2 cables in which the pulling operation was treated as a Class 1E cable installation for job training of the craftsmen and FQC.

The licensee is participating in the Boiling Water Reactor (BWR) Owner's Group program to qualify their equipment in accordance with IEEE 323-1974 requirements. Results of the testing is not expected for several months.

The licensee issued seven CDN's: two relative to vendor supplied spring nuts, one to transformers, one to switches, one to motor starters, one to relays, and one to electrical equipment supports.

No violations or deviations were identified.

The NRC inspectors expended 230 inspection-hours in this functional area.

Licensee performance was assessed by the Board as Category 2 in this functional area.

7. Instrument and Control Systems

This functional area was not inspected during the evaluation period due to limited activity.

8. Licensing Activities

Prior to this evaluation period, the Final Safety Analysis Report and Environmental Report - Operating Licensing Stage, provided by GSU, were docketed. The principal activity during the evaluation period was related to detailed review of these documents through request for information and review of responses from the applicant. An environmental site visit was conducted at RBS, in January 1982. Correspondence for the most part was limited to the above areas.

In response to staff requests, the utility has generally provided timely responses. GSU informed the staff in November 1981 of construction schedule changes which projected a fuel load date of April 1985. The state of construction and nonavailability of information caused delays in some responses which did not support reviews under the original schedule. The NRC staff subsequently revised its review schedule with the first formal document, the Safety Evaluation Report, to be issued in December 1983. Under the revised schedule, the applicant has been able to provide information to support the current level of effort on reviews.

The utility licensing staff members have a good working knowledge of applicable regulations, guides, standards, and generic issues. The applicant has displayed a positive and supportive attitude toward resolution of potential issues and has taken an active role in support of resolving Licensing Review Group-II (LRG-II) issues. During meetings with the NRC, the licensee has provided the appropriate technical persons to make the meetings productive. Examples include the meetings on use of maxi-bolts, the emergency operations

facilities, and the structural fix to mitigate hydrodynamics loads on the containment. The applicant has also provided a technically sound approach in these cases.

In summary, the applicant is characterized as knowledgeable, cooperative, and technically competent in the licensing area.

Licensee performance was assessed by the Board as Category 2 in this functional area.

9. Corrective Action and Reporting

The review of licensee's activities relative to timely reporting of potentially reportable 10 CFR 50.55(e) conditions revealed that the licensee is complying with the commitment outlined in the GSU letter RBG-12,597, and a conference with GSU on May 18, 1982.

A review of the CDN's issued since May 1, 1982, and the associated site documents, revealed that the licensee has issued 8 reportable conditions and 14 nonreportable conditions under the 10 CFR 50.55(e) requirements.

10. Management Control

GSU senior vice president, River Bend Nuclear Group, maintains his office onsite and is present approximately 95% of the time.

GSU is increasing their site staff to be more involved in the daily activities related to the resolution and reporting of identified problem area.

The licensee management has indicated a willingness to meet with NRC management in an effort to achieve a mutual understanding of common problems.

The licensee continues to provide personnel training for necessary construction activities.

The Board assessed the licensee performance level to be Category 2 in this functional area.

11. Conclusion

The SALP Board concluded that the licensee had demonstrated characteristics having satisfactory qualities during the appraisal period. The consensus of the Board was that the licensee has performed in a Category 2 mode in regard to the licensee's ongoing construction activities. Overall performance evaluation rating of Category 2 by the SALP Board was based on the licensee's satisfactory performance rating in the seven functional areas reviewed. All functional areas were rated Category 2. A rating of Category 2 in the functional area

of corrective action and reportability indicated that definite improvements have been made during this assessment period.

In regard to the licensee's ongoing interactions with NRR, the consensus of the Board was that the licensee has managed these activities in a Category 2 mode when compared to other licensees involved in the same process. While the basis for judgements are limited during this period, observations do not give rise to any significant concerns.

12. Board's Recommendation

Based on the Category 2 assessment, the SALP Board recommended that NRC attention overall be maintained at a normal level.

V. Supporting Data and Summaries

1. Report Data

- a. Licensee Event Report (LER) numbers reviewed

(Not applicable)

- b. Construction Deficiency Reports

The licensee issued 29 deficiency reports during the assessment period.

DR-19	A-500 Grade B Steel Potential Deficiencies w/Bergen Patterson QA Program
DR-21	Improperly Manufactured Delaval Valve Springs
DR-22	Power Strut Spring Nut slippage
DR-23	HPCS Diesel Generator Space Cooler, Design Heat Load Input
DR-30	Interpretation of Radiographs Performed by B. F. Shaw
DR-31	Loose Parts (Limit Switches) on Valves Motor Operators Supplied by Limitorque
DR-32	Lack of Full Penetration Welds in Pipe Whip Restraints
DR-34	S&W Failure to Design Redundant Current Transformers in the Recirculation Pump System
DR-37	Misalignment of Slip Contacts of Series 20 Electro-Switches

- DR-38 PS-10RS Spring Nuts Performance Failure
- DR-39 Inadequate Gap Between Drywell Beam and Drywell
- DR-43 Unsatisfactory Inspection by S&W FQC Inspectors
- DR-45 Failure to Meet Specification Requirements for Limited Access Welding
- DR-46 Self-Aligning Rod End Bearings for Pipe Supports are Improperly Retained.
- DR-48 NEMA Class 1 & 2 Motor Starters supplied by Gould
- DR-58 Indications Seen on Containment Penetrations Bellows Radiographs
- DR-60 Category 2 Pipe Supports in the Control Building Found Not Meeting the GSU R.G. 1.29 Position
- DR-61 Starting Air Valve Assembly on DSRV and Standby Diesel Generators
- DR-62 Nonconforming Welding Quality of Category I Structural Steel Welds
- DR-63 Improper Valve Bonnet Stud Material - Velan Valves
- DR-64 Weld Defects in Shop Weld for Containment Personnel Airlock
- DR-65 Cracking and Spalling of Concrete on Drywell Wall
- DR-66 Linear Indications Found in RHR System Heat Exchanger Supports by Teledyne Brown
- DR-67 GE's Century Series Relays
- DR-68 Tectyl Perservative Used in HPCS Diesel
- DR-69 Welding Rods Supplied by Chemetron Corporation
- DR-70 Defect in Diesel Generator Drive Coupling
- DR-71 QA Documentation of Personnel Air Lock
- DR-72 Improper Torquing of Concrete Expansion Anchors

Several of these deficiencies should have been reported in the previous assessment period. These potential reportable deficiencies were identified in NRC Inspection Reports 50-458/81-10, 81-11, 82-01, and 82-03.

c. Part 21 Reports

The licensee did not file any Part 21 reports, nor did any of his agents.

d. Violations/Deviations

The NRC inspectors identified six violations and four deviations during the assessment period.

81-10	Deviation	Failure to Promptly Report a Potential Deficiency
81-10	Deviation	Deviation from Cleaning Practices for Concrete Placement
81-11	Deviation	Substitution of Grade 60 Reinforcing Steel for Grade 40 Reinforcing Steel
82-03	Deviation	FSAR Requirements for Analysis and Design of Pipe Supports
81-11	Violation	Severity Level IV - Failure to Follow Procedures for Notification of Reportable Deficiencies
82-01	Violation	Severity Level III - Failure to Provide Timely Notification of a Construction Deficiency
82-03	Violation	Severity Level IV - Failure to Take Adequate and Prompt Corrective Action Regarding Reporting of Significant Construction Deficiencies
82-03	Violation	Severity Level IV - Inadequate Procedural Requirements to Ensure Adequate Storage and Maintenance of Safety-Related Equipment
82-04	Violation	Severity Level IV - Failure to Follow Storage Procedures for Structural Steel Fasteners
82-05	Violation	Severity Level V - Failure to Follow Welding Procedure

2. Licensee Activities

Construction work proceeded on a relatively routine basis during the period. The evaluation period ended with construction work essentially 52% complete.

3. Inspection Activities

Region IV conducted eight routine inspections related to the implementation of the "B" inspection program involving 327 inspection-hours. The senior resident inspector (SRI) expended an additional 1152 inspection-hours over the period performing construction type inspection activities. An additional 16 inspection-hours were involved in the investigation described below.

4. Investigations and Allegations Review

On September 3, 1982, the NRC Headquarters duty officer notified the NRC Region IV office of an alleged at the RBS. The SRI and a region-based inspector interviewed the alleged at his home September 15, 1981. In general, the individual was concerned about poor practices utilized by craft supervision involving the installation of concrete expansion anchors.

a. Allegation No. 1

The alleged's first concern identified three base plates on Elevation 115 of the south wall of the control building where supervision had instructed workers to fill "unused" holes prior to inspection by FQC.

An inspection performed by FQC and documented by FQC indicated that all grouted holes were reviewed to ensure that minimum edge distances were not violated.

b. Allegation No. 2

He (the alleged) was instructed to unplug his "black box" which should automatically shut off the drill when the drill hits reinforcing steel, and just have it on the scaffold to look as if it is being used.

The "black box" is included in the drilling operation to preclude possible damage to reinforcing steel. Testing indicated that no damage outside of allowable specification requirements would result from continued drilling after hitting reinforcing steel. In addition, FQC is required to inspect all anchor holes for damage to reinforcing steel.

c. Allegation No. 3

Another allegation identified two base plates on Elevation 115 of the north wall of the control building where the anchor bolt locations may violate spacing requirements. A review of inspection reports demonstrate that bolt locations were in accordance with specification requirements. This allegation could not be substantiated.

d. Allegation No. 4

The fourth allegation addressed installation of drilled-in concrete anchors at Elevation 154 south wall where concrete was chipped out to insert a base plate to the wall. The individual was concerned this plate may have been installed without FQC involvement.

This allegation may have had merit, but the documentation reviewed by the NRC inspector was in accordance with the program requirements and appears adequate.

Although some of the above allegations may have merit, the procedural violations had been previously identified by the licensee and documented in accordance with procedural requirements. The installation procedure must be reviewed to ensure controls are adequate to preclude general practices of poor workmanship.

5. Escalated Enforcement Actions

None.

6. Management Conferences Held During Assessment Period

A management conference was held on February 8, 1982, to discuss earlier notification to Region IV of potentially reportable deficiencies under 10 CFR 50.55(e). In addition, a management conference was held with the licensee as required by the SALP program.

INSPECTOR'S REPORT
 Office of Inspection and Enforcement

BROWN, ROSS L.
 REVIEWER
CROSSMAN, W. A.

INSPECTORS
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G. L. MADSEN, W. A. CROSSMAN, **R. L. PERCH, L. D. GILBERT**

LICENSEE/VENDOR	TRANSACTION TYPE	DOCKET NO. (8 digits) OR LICENSE NO. (BY PRODUCT) (13 digits)	REPORT		NEXT INSP. DATE	
			IO	SEQ.	MO.	YR.
GULF STATES UTILITIES, Co.	<input checked="" type="checkbox"/> I - INSERT	05000459	8	12	A	
	<input type="checkbox"/> M - MODIFY					
	<input type="checkbox"/> D - DELETE					
	<input type="checkbox"/> R - REPLACE					

PERIOD OF INVESTIGATION/INSPECTION						INSPECTION PERFORMED BY		ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See IEMC 0530 "Manpower Reporting—Weekly Manpower Reporting" for code)		
FROM			TO			1 - REGIONAL OFFICE STAFF	OTHER	REGION	DIVISION	BRANCH
MO.	DAY	YR.	MO.	DAY	YR.					
09	01	81	08	31	82	<input checked="" type="checkbox"/>		4	C	A
						2 - RESIDENT INSPECTOR				
						3 - PERFORMANCE APPRAISAL TEAM				

REGIONAL ACTION (Check one box only)		TYPE OF ACTIVITY CONDUCTED (Check one box only)													
<input checked="" type="checkbox"/> 1 - NRC FORM 591	<input type="checkbox"/> 2 - REGIONAL OFFICE LETTER	<input type="checkbox"/> 02 - SAFETY	<input type="checkbox"/> 03 - INCIDENT	<input type="checkbox"/> 04 - ENFORCEMENT	<input type="checkbox"/> 05 - MGMT. AUDIT	<input checked="" type="checkbox"/> 06 - MGMT. VISIT	<input type="checkbox"/> 07 - SPECIAL	<input type="checkbox"/> 08 - VENDOR	<input type="checkbox"/> 09 - MAT ACCT.	<input type="checkbox"/> 10 - PLANT SEC.	<input type="checkbox"/> 11 - INVENT. VER.	<input type="checkbox"/> 12 - SHIPMENT/EXPORT	<input type="checkbox"/> 13 - IMPORT	<input type="checkbox"/> 14 - INQUIRY	<input type="checkbox"/> 15 - INVESTIGATION

INSPECTION/INVESTIGATION FINDINGS (Check one box only)				TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS				ENFORCEMENT CONFERENCE HELD				REPORT CONTAIN 2,790 INFORMATION				LETTER OR REPORT TRANSMITTAL DATE					
A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	MO.	DAY	YR.	MO.	DAY	YR.
<input checked="" type="checkbox"/>																12	23	82			
1 - CLEAR				1 - YES				1 - YES				NRC FORM 591 OR REG. LETTER ISSUED				REPORT SENT TO HQ. FOR ACTION					
2 - VIOLATION																					
3 - DEVIATION																					
4 - VIOLATION & DEVIATION																					

MODULE INFORMATION												MODULE INFORMATION											
REC. ORD.	MODULE NUMBER INSP.				DIRECT INSPEC. EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED TO DATE	STATUS	MODULE REQ. FOLLOWUP				REC. ORD.	MODULE NUMBER INSP.				DIRECT INSPEC. EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION	PERCENTAGE COMPLETED TO DATE	STATUS	MODULE REQ. FOLLOWUP			
TYPE	NUMBER	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER				LEVEL	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL	TYPE	NUMBER	PHASE	MANUAL CHAPTER				PROCEDURE NUMBER	LEVEL	PHASE	MANUAL CHAPTER
B	099021	B			160						B												

* CIRCLE SEQUENCE IF VIOLATION OR DEVIATION

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