SALP BOARD REPORT

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

SYSTEMATIC APPRAISAL OF LICENSEE PERFORMANCE

Inspection Report 50-498/84-40

Gulf States Utilities

River Bend Station

August 1, 1983 - December 31, 1984

I. INTRODUCTION

The NRC has established a Systematic Assessment of Licensee Performance (SALP) program as an integrated NRC staff effort to collect available observations and data on a predetermined schedule and to evaluate licensee performance based on these observations and data. Emphasis is placed upon NRC understanding the licensee's performance in the 19 functional areas listed in the body of the report and discussing and sharing this understanding with the licensee. SALP is an integrated part of the regulatory process used to assure licensee's adherence to the NRC rules and regulations. SALP is oriented toward furthering NRC's understanding of the manner in which: (1) the licensee management directs, guides, and provides resources for assuring plant safety; and (2) such resources are used and applied. The integrated SALP assessment is intended to be sufficiently diagnostic to provide meaningful guidance to licensee management related to quality of plant construction.

The integrated review was conducted by a SALP Board composed of NRC personnel who are knowledgeable of the licensee's activities. The SALP Board met on February 5, 1985, to review data and observations and to assess the licensee's performance in 19 areas. This SALP report is the SALP Board's assessment of the licensee's safety performance at River Bend Station during the period of August 1, 1983, through December 31, 1984.

The SALP Board was composed of the following members of the NRC staff:

E. H. Johnson, RIV, Chairman
R. L. Bangart, RIV
D. D. Chamberlain, RIV
F. Congel, NRR
R. E. Farrell, RIV
J. P. Jaudon, RIV
E. J. Weinkam, NRR

Other attendees who participated in all or part of the Board's deliberations were:

J. B. Baird, RIV
R. J. Everett, RIV
M. E. Murphy, RIV
B. Murray, RIV
W. C. Seidle, RIV

II. CRITERIA

Licensee performance was assessed in 19 selected functional areas. Each of these functional areas represents an area significant to nuclear safety. Evaluation criteria, as listed below, were used, as appropriate, in each of the functional area assessments:

- Management involvement in assuring quality.

- Approach to resolution of technical issues from a safety standpoint.
- Responsiveness to NRC initiatives.
- Enforcement history.
- Reporting and analysis of reportable events.
- Staffing (including management).
- Training effectiveness and qualification.

In addition, SALP Board members considered other criteria, as appropriate. Based upon the SALP Board assessment, each functional area evaluated is classified in one of the three performance categories. The definition of each of these performance categories is:

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

In summary, the licensee's performance, as determined during the SALP Board meeting, is shown in the table below, along with the performance category from the previous SALP evaluation period:

Functional Area	Present Performance Category (8/1/83 to 12/31/84)	Previous Performance Category (9/1/82 to 7/31/83)
A. Soils and Foundations	Not Assessed (NA)	NA
B. Containment and Other Safety-Related Structures	1	2

Functional Area		Present Performance Category (8/1/83 to 12/31/84)	Previous Performance Category (9/1/82 to 7/31/83)
C.	Piping Systems and Support	2	2
D.	Support Systems	2	2
E.	Electrical Power Supply and Distribution	2	2
F.	Instrumentation and Control Systems	2	2
G.	Safety-Related Components	2	2
H.	Corrective Action and Reporting	1	2
I.	Quality Assurance (Construction)	2	2
J.	Quality Assurance (Operations)	2	NA
K.	Design Control	2	1
L.	Preoperational Testing	2	NA
M.	Plant Operations Preparation	2	NA
N.	Emergency Preparedness	2	NA
O.	Radiological Controls	2	NA
P.	Security	2	NA
Q.	Training	2	NA
R.	Management Control	1	1
S.	Licensing Activitiy	2	2

Forty-four NRC inspections were conducted during this assessment period involving a total of 8880 direct inspection man-hours. This represents a significant increase in NRC inspection effort during this assessment period as compared to 14 NRC inspections involving a total of 1392 direct inspection man-hours during the previous assessment period. This increase was due in part to major NRC team inspections conducted by the

Nondestructive Examination (NDE) van team, the Construction Appraisal Team (CAT), the Emergency Preparedness Appraisal, and the Integrated Design Inspection (IDI) team, which among them totaled more than 4900 direct inspection man-hours.

IV. PERFORMANCE ANALYSIS

A. Soils and Foundations

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

B. Containment and Other Safety-Related Structures

1. Analysis

Four inspections were performed in this functional area during the assessment period including major team inspections by the CAT and the NDE teams. Inspection included structural steel welding, nondestructive examination of structural steel welding, and concrete placement.

One reportable construction deficiency (DR-135) was identified in this area during the assessment period. This involved loss of the water seal on RHR minimum flow lines in the suppression pool.

No violations or deviations were reported for this period.

During the assessment period the concrete shield building around the free standing steel containment was completed. This is the last safety-related structure to be completed.

2. Conclusion

The SALP Board assessed the licensee performance to be superior in this functional area. Licensee management attention and involvement are evident by the high quality control and quality assurance attention given to completion of the shield building and the problem-free completion of this structure.

The licensee is considered to be in Performance Category 1 in this area.

3. Board Recommendations

a. Recommended NRC Action

The NRC activities in this area may be reduced.

b. Recommended Licensee Action

The licensee management should continue to be involved in site activities to assure that continued superior quality is achieved.

C. Piping Systems and Supports

1. Analysis

Eight inspections were performed in this functional area during the assessment period including major team inspections by the Construction Assessment Team and the Nondestructive Examination Team. These inspections resulted in four violations:

- Inspection of Socket Welds by RCI (8319-01) (Severity Level IV)
- Failure of RCI Quality Control to Follow Weld Inspection Signoff Procedure (8319-02) (Severity Level IV)
- Failure to Control Welding Material (8404-02) (Severity Level IV)
- Failure to Inspect Pipe Restraints and Supports for Conformance to Drawings (8436-04) (Severity Level IV)

Additionally, seven reportable construction deficiencies were identified during the assessment period:

- DR-137 - Field Welds on Support Plates
- DR-149 - Post Weld Heat Treatment Not Performed on Fabricated Supports by Bergen Patterson
- DR-193 - Passive Failure of ECCS Suction Lines
- DR-238 - Pacific Scientific Snubbers with Bergen Patterson Hardware
- DR-243 - Incompatible Parts of Component Supports
- DR-246 - Minimum Wall Discrepancy of BF Shaw Shop Weld Found During Preservice Inspection
- DR-260 - Control Rod Drive Scram Discharge Volume Drain Line Configuration

During the assessment period, piping and supports activity peaked and for several months dominated site activity. Installation is now essentially complete with some support work remaining as well as inspection completion and "as built" verification.

Of the four violations during the assessment period, three occurred early in the period. The remaining violation had to do with verification of as-built dimensions and was easily and promptly corrected by the licensee. The licensee is aggressive and responsive in resolving inspector identified items or concerns. Considering the level of activity during the assessment period, this functional area was relatively problem-free.

2. Conclusion

The problems identified above were promptly and aggressively resolved. Licensee management is sensitive to inspector concerns. Staffing in this functional area is satisfactory. The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

The NRC should maintain a normal level of attention in this area.

b. Recommended Licensee Action

The licensee's corrective action of identified problems and the planned program of component support inspections should minimize repetition of problems. Additional management attention should be directed to as-built verification and drawing resolution.

D. Support Systems

1. Analysis

a. Heating/Ventilation/Airconditioning (HVAC)

There were three inspections performed in this functional area during the assessment period, including a major team inspection by the Construction Assessment Team.

No violations or deviations were identified during these inspections.

Two reportable construction deficiencies were identified in this area during the assessment period:

- DR-151 - Partial Penetration Welds on HVAC Ductwork Should be Full Penetration

- DR-192 - McCroskey Ductwork Fabrication

Additionally, the licensee, at the NRC's request, investigated a multipart allegation in the area of HVAC construction.

The licensee's management was fully involved in the investigation and correction of problems in this area and demonstrated a desire for and willingness to obtain acceptable quality.

b. Fire Protection During Construction

This area has been evaluated on a continuing basis during plant tours. Fire protection measures and housekeeping requirements have been provided to prevent the buildup of combustible materials in the work area.

Additionally, zone housekeeping requirements have been instituted for purposes of protecting equipment from dirt and other contaminants, which could degrade equipment performance or shorten expected service life. During the assessment period there were two violations resulting from failure to adhere to zone housekeeping requirements:

- Failure to Maintain Protective Environment (8404-01) (Security Level V)

- Failure to Maintain Protective Environment (8424-01) (Security Level IV)

Following the first housekeeping violation, licensee management initiated a training program emphasizing the importance of housekeeping requirements. A general plant cleanup effort was also undertaken. When these efforts proved not to be completely effective, the licensee initiated a much more aggressive cleanup effort coupled with termination and suspension without pay for those individuals who persisted in violating housekeeping requirements.

2. Conclusion

The prompt and aggressive actions taken by the licensee to correct deficiencies in this area along with a demonstrated commitment to improve general housekeeping and equipment protection are notable. The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC should maintain a high level of attention in this area as housekeeping requirements escalate as the plant nears fuel load.

b. Recommended Licensee Actions

The licensee should maintain a very high level of attention in this area to assure a successful transition from construction phase housekeeping to operational housekeeping.

E. Electrical Power Supply and Distribution

1. Analysis

Ten inspections were performed in this functional area during the assessment period, including a major team inspection by the Construction Assessment Team.

There were no violations or deviations identified in this area during the assessment period.

There were 21 reportable construction deficiency reports (DRs) identified during the assessment period:

- DR-138 - Gould Overload Calibration and Trip Coil Sticker Range
- DR-152 - Wire Terminations on 480V MCC's by Gould
- DR-154 - High Voltage Cable Terminations
- DR-160 - Transformer Cable Lead Lugs (Brown Boveri)

- DR-191 - Buchanan Terminal Blocks Supplied by Gould Brown Boveri
- DR-216 - Shorted Conductors Supplied by Conax for Penetrations
- DR-222 - Relocation of 125V DC Panel (HPCS)
- DR-255 - GE Supplied Topaz Inverters
- DR-259 - Terminal Blocks in MCC, Loss of Continuity

The following DRs cover various aspects of the Transamerica Delaval diesel generators:

- DR-163
- DR-172
- DR-194
- DR-202
- DR-220
- DR-221
- DR-227
- DR-228
- DR-230
- DR-231
- DR-256
- DR-265

Licensee management has been deeply involved in assuring the quality in this area and has utilized the task force approach to solve problems associated with the Transamerica Delaval diesel generators.

2. Conclusion

Although there have been deficiencies in this functional area, licensee management performance has been satisfactory. These deficiencies were generally the result of vendor supplied material and required extensive rework in the field. Licensee management has not backed away from extensive rework requirements and has focused appropriate and sufficient manpower on problem areas to obtain satisfactory quality.

Class 1E circuit separation remains a concern. The licensee intends to use fire barriers to achieve separation where there is inadequate spatial separation. However, qualification of the barrier material, specific applications, and identification of all needed areas of application remain open at this time.

The licensee is judged to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

NRC activity in this area should remain at a high level consistent with the tempo of construction and test activities in this area.

b. Recommended Licensee Actions

Continued strong attention by management and application of inspection resources in this functional area will be necessary because of the level of construction activity that remains.

F. Instrumentation and Control Systems

1. Analysis

Five inspections were performed in this functional area during the assessment period, including a major inspection by the Construction Assessment Team.

One violation was identified during the assessment period:

- 8431-03 - Failure to Provide Adequate Class 1E Circuit Separation (Severity Level IV)

Four reportable construction deficiencies were identified during the assessment period:

- DR-177 - Pulling of Neutron Monitoring System Cables
- DR-199 - Connectors Separated from Coaxial Cables
- DR-240 - Westinghouse SA 1 Differential Relays
- DR-250 - Leakage in Pressure Transmitter Supplied by Rosemount

The licensee currently has a high amount of activity in this area. Of greatest concern during the assessment period was the treatment of control and signal cable during the transition from pulling power cable to pulling these smaller cables and the

protection of instrumentation from dirt. The licensee has experienced problems in these areas during the assessment period.

2. Conclusion

Although the licensee has experienced early problems in the transition from power to instrumentation and control electrical work, the approach to solving these problems has been good.

After initial difficulties and an educational period for site personnel performance, this functional area was satisfactory and indicates appropriate levels of attention and staffing.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

The NRC activities in this area should be commensurate with the level of activity to assure that sensitive instruments remain protected from damage by ongoing construction work.

b. Recommended Licensee Action

Licensee management attention in this area should continue to be focused on correcting identified problems, and precluding their recurrence. Additional attention and resources in this area may be needed to accommodate increased activity in this area.

G. Safety-Related Components

1. Analysis

Three inspections were conducted in this functional area during the assessment period including a major team inspection by the Construction Assessment Team and the Nondestructive Examination Team.

No violations or deviations were identified.

Thirteen reportable construction deficiencies were identified in this area during the assessment period:

- DR-141 - Short Bolt in Velan Valve in Service Water System

- DR-142 - Crosby Relief Valve has Incorrect Bellows Assembly
- DR-182 - Feedwater Isolation Valve Motor Operator Supplied by Limitorque
- DR-190 - Gould Fill Pumps for LPCS, HPCS, and RHR
- DR-205 - Terminal Blocks on Motor Operated Valves Manufactured by Limitorque
- DR-206 - Fuel Pool Cooling Pumps and Motors Lubricant
- DR-225 - MOVs Supplied by Velan with Oversized Motors and Gear Ratio Changers
- DR-232 - MOV Motor has Incorrect Insulation, Velan
- DR-234 - Velan Check Valve With Short Cap Screw
- DR-249 - W. J. Woolley Personnel Airlock Doors
- DR-253 - Limitorque SMB-000 Valve Operators
- DR-258 - Containment Isolation Valve Leakage Rate
- DR-276 - RCIC Suction Valve (Condensate Storage Tank Suction Lines)

The licensee's onsite quality control and quality assurance activities have been sufficiently strong to identify component problems which require corrective action. This has compensated for some apparent weaknesses in source inspection. Some deficiencies that have been identified could have been prevented by either better vendor quality assurance programs or more meticulous source inspection by the licensee.

2. Conclusion

As the licensee approaches operation, procurement activities have centered on spare parts. An improved source inspection program should be part of the licensee's procurement program for safety-related spare parts.

Aggressive field quality control and quality assurance activities have been evident through the identification and correction of deficiencies.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

NRC inspection effort should be commensurate with the level of construction and testing activities.

b. Recommended Licensee Actions

The licensee's management attention in this area should be continued to assure satisfactory component quality. Source inspection should be improved to support spare parts procurement.

H. Corrective Action and Reporting

1. Analysis

Eight inspections were performed in this functional area during the assessment period including a major team inspection by the Construction Assessment Team.

One deviation (8430-01) was identified during the assessment period. The deviation involved the timing for performing a component repair and did not impact safety.

The licensee has a very low reporting threshold. Of 150 potentially reportable deficiencies identified by the licensee during the assessment period, 63 have been determined not reportable and 38 are still being evaluated.

The licensee documents and tracks NRC inspector findings and concerns as they are identified verbally and initiates corrective action prior to receiving formal inspection reports. This was best exemplified during followup inspections of the Construction Assessment Team's inspection findings. The licensee had instituted a computerized tracking system of CAT findings and had already initiated corrective actions. In almost every case, the inspectors performing inspections to followup CAT findings found that corrective actions had already been completed.

2. Conclusion

The licensee is sensitive to NRC reporting requirements and takes prompt aggressive corrective action as problems are identified.

The licensee is considered to be in Performance Category 1 in this area.

3. Board Recommendations

a. NRC Action

Continue current level of NRC inspection.

b. Recommended Licensee Action

The licensee attention given to this area should continue to assure identification and correction of deficiencies. Licensee practices of tracking NRC concerns and findings should be carried into operations along with the practice of prompt and aggressive corrective action.

I. Quality Assurance (Construction)

1. Analysis

Nine inspections were performed in this area during the assessment period including major team inspections by the Construction Assessment Team and the Nondestructive Examination Team. These inspections resulted in four violations:

- 8402-03 - Failure to Meet Radiograph Quality Requirements (Severity Level V)
- 8416-01 - Failure to Effectively Control Documents (Severity Level V)
- 8436-01 - Failure to Review Quality Assurance Program (Severity Level IV)
- 8436-03 - Document Control Failure (Severity Level IV)

The licensee's contractor, Stone and Webster, is responsible for quality control during construction with quality assurance performed by the licensee. The audit function is performed by the licensee's audit group addressed in the operations quality assurance portion of this report.

Quality control activities are adequately manned with qualified, trained personnel. Quality control inspectors are conscientious and thorough. The quality control organization has been very effective in carrying out inspection duties.

Quality assurance personnel are generally well qualified, but during the assessment period were too few in number to achieve the full level of surveillance required. Construction quality assurance personnel were utilized to man audit teams to conduct exit interviews for terminating employees, and to resolve quality concerns identified to the licensee. Additionally, these same quality assurance personnel have a heavy paperwork burden tracking nonconformance resolutions and deficiency report closures. All of these activities, while necessary, detract from the surveillance program by utilizing the manpower that would otherwise be devoted to quality assurance surveillances.

The licensee has, during this assessment period, instituted a quality concerns program. This program involves pay envelope notices and posters advising employees how and where to report quality concerns. Additionally, exit interviews have been conducted of quality and supervisory employees upon termination. This program is being expanded to include additional categories of employees and also continuing employees as well as those terminating.

The licensee's efforts to resolve identified concerns has been satisfactory.

2. Conclusion

Despite the undermanning of the construction quality assurance surveillance function, the overall construction quality assurance function is quite satisfactory through an effective audit and quality control program. Hardware deficiencies are identified and resolved, programmatic problems are adequately addressed and the licensee is encouraging employees to voice quality concerns and is then addressing concerns that are expressed.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

NRC should continue the present level of activity in this area until construction is essentially complete.

b. Recommended Licensee Action

The licensee should utilize quality assurance personnel to provide greater surveillance of actual construction activity. Staff should be provided to accomplish the surveillance program in addition to performing the document reviews and other activities which quality assurance performs.

J. Quality Assurance (Operations)

1. Analysis

NRC inspections conducted in this functional area included preoperational testing quality assurance, quality assurance organization and audit/corrective action program. In addition, the overall effectiveness of the quality assurance program was evaluated during inspections of other functional areas.

Four violations of NRC regulations and one deviation from a commitment were identified in this functional area:

- 8322-01 Failure of Followup Action for Audit Findings (Severity Level IV)
- 8428-01 Failure to Audit GSU Preventive Maintenance Program (Severity Level IV)
- 8428-02 Failure to Maintain Adequate Quality Assurance (Severity Level IV)
- 8428-03 Failure to Control Quality Assurance Procedures (Severity Level V)
- 8430-01 Failure to Meet a Commitment to the NRC (Deviation)

In addition to the aforementioned findings, NRC inspectors identified concerns with quality assurance audit scheduling activities and staffing levels of the quality assurance organization.

In response to NRC findings and concerns and in order to make the required transition from construction phase activities to operation phase activities, the licensee made organizational

changes and program changes throughout the assessment period. The quality assurance director's position was upgraded to quality assurance manager with a director of operations quality assurance and a director of quality services reporting to the manager.

2. Conclusion

The organizational and program changes implemented during the assessment period have resulted in an apparent strengthening of the overall quality assurance program at River Bend. Management is highly involved with resolution of quality issues and the responsiveness to NRC findings and concerns has been excellent. However, it is apparent that the transition from construction to operation activities is still causing growing pains within the quality assurance program and that the available quality assurance staffing resources are being severely strained during this peak period of activity.

The licensee is considered to be in Performance Category 2 in this functional area.

3. Board Recommendations

a. Recommended NRC Actions

Increase the NRC inspection effort to review all phases of the River Bend quality assurance program relating to plant operation (e.g. audits, document control, maintenance, surveillance, procurement, records, etc.) because of the tempo of current activities.

b. Recommended Licensee Actions

GSU should aggressively recruit and fill positions within the quality assurance organization. Operations quality assurance should actively monitor operational phase activities to provide early detection of problem areas.

K. Design Control

1. Analysis

Inspection activities in this area included limited inspection of design change control activities in conjunction with normal programmatic inspections and a special inspection of the diesel generator electrical and control system design. In addition to the above NRC Region IV inspections, an Integrated Design

Inspection (IDI) was conducted by a team from the NRC Office of Inspection and Enforcement. The results of the IDI inspection, including a recommended performance category, are included as Attachment 1 of this report.

As a result of the NRC Region IV inspections, two violations of NRC regulations were identified.

- 8320-01 Failure to Communicate Needed Design Information to the Plant Staff Regarding Operating Limitations of the Diesel Generator System (Severity Level IV)

- 8436-02 Failure to Translate Cable Tray Fill Limits into Specifications, Drawings, Procedures, or Other Instructions (Severity Level IV)

One reportable construction deficiency was identified in this functional area.

- DR-195 Incorrect Identification of Design Locations for Motor Operated Valves (Resulted in the Incorrect Specification of Motor Insulation Type)

2. Conclusion

NRC Region IV concurs with the IDI recommended assessment for a Performance Category 2 in this functional area.

3. Board Recommendations

a. Recommended NRC Actions

The NRC should continue to monitor design change control activities along with the as-built verification effort and follow through on closeout of all open items identified during the IDI inspection.

b. Recommended GSU Actions

The licensee should continue the aggressive closeout of all IDI findings and monitor the as-built verification program for any indications of design process control breakdown.

L. Preoperational Testing

1. Analysis

Several NRC inspections were conducted in this area which included review of such areas as overall preoperational test program, preoperational test program implementation,

preoperational test procedures, preoperational test witnessing, and preoperational test result evaluation. The testing activities were conducted by the Stone & Webster (S&W) preliminary test organization (PTO) and the Gulf States Utilities (GSU) startup organization. The preoperational tests performed by GSU along with the preliminary tests performed by PTO comprise the total test completions for safety-related systems at River Bend.

Five violations of NRC regulations and one deviation from commitments were identified in this functional area:

- 8322-03 Failure of Document Control Program (Severity Level IV)
- 8408-03 Failure of Equipment Storage Methods (Severity Level IV)
- 8415-02 Failure to Follow Procedures (Severity Level IV)
- 8431-02 Inadequacy of Preoperational Test Procedure (Severity Level IV)
- 8434-01 Failure to Follow Preoperational Test Procedure (Severity Level IV)
- 8438-01 Failure to Include FSAR Commitments in Preopational Test Procedure (Deviation)

2. Conclusion

It is apparent that GSU has assembled a strong test organization with qualified personnel and GSU has taken prompt and aggressive action to correct deficiencies identified by NRC inspectors. The PTO organization has apparently been effective in assuring system completion and in preparing systems for preoperational testing to support an aggressive startup schedule. There is some concern by the NRC inspectors with systems being accepted from construction with a large number of punch list items outstanding. However, there has been good control and tracking of punch list completions and testing records appear to be complete and orderly. Also, systems are being transferred from GSU startup to the plant operating staff with only limited master punch list items outstanding.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

The NRC should complete the required programmatic inspections for test witnessing and test results evaluation.

b. Recommended Licensee Action

The licensee should monitor test activities closely to assure that test exceptions are being handled properly and that test records provide a clear and accurate record of testing performance.

M. Plant Operations Preparation

1. Analysis

Limited NRC inspections have been conducted in this functional area. The areas that have been reviewed include operational staffing, plant administrative procedures, and plant operating procedures.

Two violations of NRC regulations were identified in this functional area.

- 8429-01 Failure to Follow Procedure for Updating Procedures (Severity Level V)

- 8432-01 Failure to Follow Procedure for Control of "Laters" (Severity Level V)

The licensee's schedule procedure development requires the review and approval of literally hundreds of procedures monthly.

2. Conclusion

The NRC is concerned with the effectiveness of the plant procedure review process, especially with the accelerated pace of review and approval. However, no specific technical problems with procedures have been identified by the limited NRC review conducted to date.

The NRC was concerned throughout this assessment period with adequacy of the permanent plant staffing and the licensee has made significant progress with filling of key positions due to

an aggressive recruiting effort. As of the end of the assessment period, approximately 73% of the permanent plant staff had been filled with GSU employees. GSU has been supplementing plant staff with contractor personnel as required. It is noted that GSU has been able to recruit and fill positions with highly experienced personnel and the overall commercial operating experience level is high.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

The NRC should complete the required program with additional emphasis on inspection of plant procedures (operating, maintenance, and surveillance) to evaluate effectiveness of the licensee's review and approval process.

b. Recommended Licensee Action

The licensee should evaluate completed procedures including performance of procedure walk-through in order to develop a confidence level with the internal review and approval process.

The licensee should continue their aggressive recruiting efforts to fill the remaining open permanent plant positions.

N. Emergency Preparedness

1. Analysis

An emergency preparedness preoperational inspection was conducted by a team of NRC inspectors during the period December 3, 1984, to determine the status of completion and adequacy of the GSU emergency preparedness program. The inspection team noted that good progress had been made in establishing the program; however, a number of significant deficiencies were identified which will require corrective actions and the team found some elements of the program to be incomplete. Because of this, a followup NRC inspection will be required to verify adequate emergency preparedness status prior to a recommendation for licensing.

Staffing during the assessment period was considered to be adequate, both in numbers and qualifications of personnel. GSU supplemented permanent staff with contractor personnel to assist in development of the emergency preparedness program.

2. Conclusion

Opportunity to observe the attributes of GSU performance during the assessment period was primarily limited to the program review conducted during the emergency preparedness preoperational inspection. The NRC inspectors identified one or more significant deficiencies in the area of organization, plan and procedures, emergency response facilities and equipment, training and coordination with offsite groups. Most of the deficiencies observed were attributable to the failure to complete all the elements of the emergency preparedness program as planned. GSU management demonstrated responsiveness to NRC concerns during the preoperational inspection by making organizational changes to strengthen the program, and at the conclusion of the inspection, expressed a strong commitment to timely followup and correction of the deficiencies identified by the NRC inspectors. Although deficiencies in program development were identified during the preoperational inspection, GSU management appeared to be actively involved and supportive of the emergency preparedness effort.

The licensee is considered to be in performance Category 2 in this area.

3. Board Recommendation

a. Recommended NRC Action

The level of NRC inspection effort should continue at normal levels. An emergency preparedness followup inspection should be conducted as soon as GSU has taken the necessary corrective actions.

b. Recommended GSU Actions

The current level of management attention to achieving an adequate state of emergency preparedness should continue. Emphasis should be given to timely correction of the deficiencies identified by the NRC during the emergency preparedness preoperational inspection.

O. Radiological Controls

1. Analysis

Five preoperational inspections were performed by region-based radiation specialist inspectors during the assessment period. The five inspections included: one radiation protection inspection; two inspections covering radwaste systems, effluent releases, effluent monitoring, and transportation activities; one chemistry/radiochemistry inspection; and one environmental monitoring inspection. No violations or deviations were identified.

The initial inspection of the radiation protection program identified several open items in various functional areas that need to be resolved prior to issuance of an operating license. A major concern identified was the need for increased commercial reactor power plant experience among the health physics staff. The licensee was specifically requested to respond to this concern with a commitment to have an adequate number of experienced health physics personnel onsite prior to fuel loading. Even though much work remains to be completed in the radiation protection area, the licensee's proposed program appears adequate in the areas of organization, staffing, training, facilities, equipment and instrumentation, surveys and controls, ALARA program, and procedures.

Two inspections were conducted in the areas of radwaste systems, effluent releases, effluent monitoring, and transportation activities. The inspections revealed that considerable work remains to be completed in these areas. Several changes have occurred during the assessment period regarding the installation of radwaste systems, organization of radwaste activities, and staffing. NRC concerns that remain to be resolved include installation of radwaste systems, training for transportation and radwaste personnel, calibration of effluent monitors, installation and testing of air cleaning systems, development of an audit and review program, development of transportation and radwaste operating procedures, controls for effluent releases, and ALARA evaluations of the "as-built" radwaste systems.

The chemistry/radiochemistry area was inspected once during the assessment period. Several open items were identified concerning organization, personnel qualifications, training, systems sampling, quality assurance and quality control program, postaccident sampling, facilities, equipment and instrumentation, and implementing procedures. The licensee had

not completed construction of chemistry/radiochemistry laboratory facilities, installation of equipment and instrumentation, and development of quality assurance and quality control and implementing procedures.

The environmental monitoring program was inspected during the assessment period. Several open items were identified involving organization, training, meteorological capabilities, and an audit and review program. The licensee has conducted a routine radiological/nonradiological monitoring program around the facility since issuance of their construction permit. The licensee has been responsive to NRC concerns identified in environmental inspections conducted during the past several years. No significant problems have been identified in this area. The licensee's proposed radiological environmental monitoring program for operations appears to satisfy NUREG-0473.

2. Conclusions

Considerable work remains to be completed in the areas of radwaste systems, effluent releases, effluent monitoring and transportation activities. Considering the current status of the facility and the licensee license issue date, the licensee appears to be behind schedule in these areas. There is a need for increased management attention and involvement in the radwaste program areas.

Work also remains to be accomplished in the radiation protection, chemistry/radiochemistry and environmental monitoring area, but the licensee's proposed schedule for these activities appears adequate to support reactor operations.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Actions

Inspection activities should continue at normal levels. The next chemistry/radiochemistry inspection should include an onsite visit with the NRC mobile laboratory to perform confirmatory measurements.

b. Recommended Licensee Actions

Increased management attention is needed to assure that NRC concerns identified in the areas of radwaste systems, effluent releases, effluent monitoring, and transportation activities are completed in a timely manner.

P. Security

1. Analysis

The physical security staff performed three inspections during this SALP period. No violations were identified, although five open items were discussed in the last physical security report (50-458/37). These included minor problems with the protected area fence line, the resolution of security concerns in regard to the tunnel to the now cancelled Unit 2, final testing of access security equipment, the installation of security equipment along the protected area contiguous to the Unit 2 excavation, and the installation and testing of vital area door equipment.

The performance level associated with the physical security program has progressed significantly during this assessment period. Effective and open channels appear to exist between the site security management and the regional-based NRC inspectors.

2. Conclusions

NRC attention should be increased significantly, not due, however, to licensee problems, but because the licensee is entering into a preoperational phase from a construction phase. Licensee site management attention and involvement appear to be adequate, along with reasonably effective resources.

The licensee is considered to be in Performance Category 2 in this area.

3. Board Recommendations

a. Recommended NRC Action

The level of NRC inspection effort in this functional area should be increased as prescribed in the security and safeguards preoperational inspection procedures.

b. Recommended Licensee Action

During the transition from construction to preoperational, the licensee should continue developing procedures and programs to implement effectively their physical security program and to develop and to further train their staff to comply with regulatory requirements.

Q. Training

1. Analysis

One NRC inspection was conducted in this functional area during this assessment period and training was evaluated during inspections conducted in other functional areas. During this limited review, it was found that training requirements and record requirements had not been fully defined for all personnel.

NRC personnel have toured the GSU training facilities on several occasions and the facilities are considered excellent. The training facilities include a plant-unique simulator which has been used for plant operator training throughout this assessment period.

No violations of NRC regulations or deviations from commitments were identified in this functional area.

2. Conclusion

It is apparent that GSU has given training priority consideration as evidenced by the early completion of training facilities and by providing training opportunities for all personnel at River Bend.

Although the effectiveness of training conducted has not been proven, overall, the aggressive attitude and positive approach to training is impressive. However, some work needs to be done to clearly link training received and records maintained to job qualification requirements.

The licensee is considered to be in Performance Category 2 in this functional area.

3. Board Recommendations

a. Recommended NRC Action

The NRC should perform the required programmatic inspections in this functional area prior to fuel load and evaluate the overall training effectiveness during inspections of other areas.

b. Recommended Licensee Action

The licensee should continue the aggressive attitude and positive approach to training activities and evaluate training effectiveness as job tasks are performed. Complete definition of job qualifications and clearly define training and training record requirements.

R. Management Control

1. Analysis

This area is not specifically inspected, but analysis is based on review of other functional areas. Aggressive licensee management attention and involvement in safety-related activities are evidenced by a satisfactory level of performance in all other functional areas.

The GSU senior vice president and vice president, River Bend Nuclear Group, are located onsite at River Bend. This close proximity of senior level management to the job activities allows early involvement in problem areas and resolutions and also affords first-hand knowledge of job status and activities. This arrangement also provides easy access to senior management by NRC personnel for resolution of findings and concerns.

2. Conclusion

Licensee senior level management is directly involved in site quality activities and the licensee is very responsive to NRC findings and/or concerns. The onsite location of senior level licensee management has greatly enhanced management control of River Bend engineering, construction, and preoperational activities. Direct involvement by top management has resulted in management decisions that are sound and effective and have resulted in overall maintenance of work quality. The conclusions in this area are based primarily on control of construction and preoperational testing activities.

The licensee is considered to be in Performance Category 1 in this functional area.

3. Board Recommendations

a. Recommended NRC Action

Continue to monitor overall effectiveness of licensee management control during future inspection activities.

b. Recommended Licensee Action

The licensee should continue aggressive emphasis on involvement in site activities to ensure that continued work quality is achieved in construction and preoperational testing activities and that the same level of quality is carried over to operational phase activities.

S. Licensing Activity

See Attachment 2 of this report. In this functional area, one violation was identified with failure to follow a procedure for licensing document (FSAR change requests) reviews within GSU. The corrective action required for this violation was a procedural revision only to clarify requirements and no additional document reviews were required. Also, one deviation from commitments was identified with failure to complete corrective action within the time frame committed in a final 10 CFR Part 50.55(e) report submitted to the NRC.

V. SUPPORTING DATA AND SUMMARIES

A. Violations

During this assessment period 25 violations of NRC requirements and 2 deviations from commitments were identified by NRC inspectors. The functional area affected and the violation severity level are indicated in the table below:

Functional Areas	Violations Severity Levels IV	V	Deviation
(1) Soils and Foundations			
(2) Containment and Other Safety-Related Structures			
(3) Piping Systems and Supports	4		
(4) Support Systems	1	1	
(5) Electrical Power Supply and Distribution			
(6) Instrumentation and Control Systems	1		
(7) Safety-Related Components			
(8) Corrective Action and Reporting			(1)
(9) Quality Assurance (Construction)	2	2	
(10) Quality Assurance (Operations)	3	1	(1)

(11)	Design Control	2		
(12)	Preoperational Testing	5		1
(13)	Plant Operations Preparation		2	
(14)	Emergency Preparedness			
(15)	Radiological Controls			
(16)	Security			
(17)	Training			
(18)	Management Control			
(19)	Licensing Activity		1	(1)
	SUBTOTALS	18	7	1+(1)
	TOTALS	25 Violations and		1+(1) Deviations

Note: There were no Severity Level I, II, or III violations identified during this assessment period. The numbers in parenthesis indicate violations or deviations that affect more than one functional area.

B. Licensee Report Data

1. Licensee Event Reports (LERs)

(Not applicable)

2. Licensee Identified Deficiency Reports

The licensee identified 150 potentially reportable items per 10 CFR 50.55(e) during the assessment period. Of these, 49 have been determined to be reportable; 63 have been determined not to be reportable and 38 are still being evaluated for reportability.

**Indicates deficiency determined reportable.

*Indicates deficiency determined not reportable.

No asterisk indicates deficiency is still being evaluated for reportability.

*DR-127 Unauthorized Wiring of a Breaker

*DR-128 Stainless Steel Tubing Does Not Meet Minimum Wall Thickness

*DR-129 Defective Agastat Relays

*DR-130 Ultrasonic Valve Cover Examination Not in Conformance With ASME Section III

*DR-131	Gould Model 3196 Pump Leaking Bearing Oil Seals
*DR-132	Non-Class 1E Qualified Fuses for Wiring Separation
*DR-133	Steam Dryer Fitup with Reactor Vessel Wall Brackets
*DR-134	Minimum Wall Thickness of Four (4) Lines in RHR System
**DR-135	Loss of Water Seal on RHR Min Flow Lines in the Suppression Pool
*DR-136	Gouge in Class 1 Feedwater Pipe
**DR-137	Field Welds on Support Plates
**DR-138	Gould Overload Calibration and Trip Coil Sticker Range
*DR-139	Pacific Scientific Snubbers
*DR-140	Engine Mounted Fuel Line on TDI Diesel Generator
**DR-141	Short Bolt in Velan Valve in SWP System
**DR-142	Crosby Relief Valve has Incorrect Bellows Assy
*DR-143	CAT II Material on Cat I Instrument Line Supports
*DR-144	Impact Test Coupons for Main Steam Guide Supports Not Heat Treated
*DR-145	Incorrect Implementation of an E&DCR Beam Was Not Strengthened
*DR-146	Circuit Breakers Supplied by Gould, Maruf. by ITE and Siemens-Allis
*DR-147	Pin in Weld on End Attachment of Pipe Support Component by BP
*DR-148	GSU's Procurement Document Control of Spare Parts

**DR-149	PWHT Not Performed on Fab Pipe Supports by Bergen Patterson
*DR-150	Motor Operator Valves by Posi-Seal International have Wrong Insulation
**DR-151	Partial Penetration Welds on HVAC Ductwork Should be Full Penetration
**DR-152	Wire Terminations on 480V MCCs by Gould
*DR-153	Bailey Orfice Plates
**DR-154	High Voltage Cable Terminations
DR-155	W. J. Woolley Airlock Seals
DR-156	Failure Mode of Devices
DR-157	ASME Stock Fittings
*DR-158	Brown Boveri ITE 320 Directional Overcurrent Relays
*DR-159	Fuses in Explosive Valve Circuits in Standy Liquid Control System
**DR-160	Transformer Cable Lead Lugs; Brown Boveri
*DR-161	Suppressor Plates Supplied by Northern Steel Corp.
*DR-162	A80L10 Trip Coils Supplied by Gould
**DR-163	Missing Key Set Screw in a Standby Diesel Generator
*DR-164	Intermixed Weld Wire
*DR-165	Copper Bus Bar
*DR-166	Terminal Blocks were Mislocated
*DR-167	HPCS Diesel Generator Control Panel Wiring Discrepancies
*DR-168	Welding of Non-Low-Carbon Grades of Stainless Steel Pipe

*DR-169	Brown Boveri Switch Gear Wiring Discrepancy Removed Design Ground
*DR-170	Fuel Oil Pipe Support on Diesel Generator
*DR-171	Robert Shaw Model 1284 Control Valves
**DR-172	Jacket Water Blanket on Diesel Generator
*DR-173	GE Main Steam Welds
*DR-174	Obtuse Fillet Welds made by RCI
DR-175	HPCS Diesel Batteries Cracked Cells
DR-176	QA Program Breakdown in GE San Jose (combined with DR-175)
**DR-177	Pulling of Neutron Monitoring System Cables
*DR-178	TDI Turbocharger Prelube Connection
DR-179	Generic Test Procedure 1-G-CAL-12: Test Loop Diagrams
*DR-180	Welding of Connection Plates to Radial Beams
*DR-181	Non-Performance of NDE due to Inaccessibility of Weld
**DR-182	Feedwater Isolation Valve Motor Operator Supplied by Limitorgue
*DR-183	94AX Relay Supplied by Gould Brown Boveri
DR-184	Support Trunion Supplied by B. F. Shaw
*DR-185	RCIC Turbine Exhaust Line Vacuum Breaker System; GDC 56 Isolation Valves
*DR-186	Rosemount Transmitters

*DR-187	CRD Hydraulic Lines
DR-188	Socket Weld Flange Hubs for MSI Instrumentation Supplied by Guyon Alloys
*DR-189	Insulated Lugs Installed in Control Room
**DR-190	Gould Fill Pumps for LPCS, HPCS, and RHR
**DR-191	Buchanan Terminal Blocks Supplied by Gould Brown Boveri
**DR-192	McCroskey Ductwork Fabrication (HVAC)
**DR-193	Passive Failure for ECCS Suction Lines
**DR-194	Standby Diesel Generator Jacket Water Pump
**DR-195	Incorrect Identification of Valve Locations
*DR-196	Undersized Fillet Weld on Battery Rack "A"
DR-197	Insufficient Documentation of Seismic Testing
*DR-198	Wrong Procedures used by Welders
**DR-199	Connectors Separated from Coxial Cables
DR-200	Unknown Substance in Reactor Vessel Head
*DR-201	Boveri Ground Detector Relay
**DR-202	Turbocharger Thrust Bearings in TDI Diesels
*DR-203	Arc Strikes in Air Start Receiver Tanks

DR-204	Insulation Torn on Rockbestos, 2/C #16
**DR-205	Terminal Blocks on Motor Operated Valves by Limitorque
**DR-206	Fuel Pool Cooling Pumps and Motor Lubricant
*DR-207	Auxiliary Trip Assemblies for Neutron/Process Radiation
DR-208	Pin Connection for Snubber Assembly
*DR-209	Technical Specification Preparation
DR-210	Rosemount Card Files
*DR-211	Guyon Alloy/Bonney Forge Fittings
*DR-212	Material Between Cells of Battery Banks
DR-213	HPCS Diesel Generator Air Start System Air Receivers
*DR-214	Atwood and Morrill Feed Check Valve
DR-215	Inverters Supplied by Elgar
**DR-216	Shorted Conductors Supplied by Conax for Penetrations
DR-217	Cardinal Industrial Products
DR-218	Brown Boveri 5K Circuit Breakers
*DR-219	Conduit Supports Loaded Beyond Original Design Loads
**DR-220	Linear Indications on Valve Seats of TDI Diesel
**DR-221	Fire Deck Wall Thickness TDI Diesel Cylinder Heads
**DR-222	Relocation of 125V DC Panel (HPCS System)
*DR-223	Mechanical Snubbers Installed Without Washers

DR-224	Main Steam Piping Thermal Movement
**Dr-225	MOV Valves Supplied by Velan Oversized Motors and Gear Ratio Changer
*DR-226	Linear Indications in Structural Steel Beams
**DR-227	Rocker Arm Pushrod Sockets in TDI Diesel
**DR-228	Linear indications in Valve Steam in TDI Diesel "A"
DR-229	Incore Guide Tube Stabilizers Cross Tie Bars
**DR-230	Valve Seat of Air Start Valve in Cylinder 8 of TDI Diesel "A"
**DR-231	Out of Round Cylinder Liners (5,6,8) on TDI Diesel "A"
**DR-232	MOV Motor has Incorrect Insulation; Velan
*DR-233	Decon Plastic Steel on Jet Impingement Wall
**DR-234	Velan Check Valve with Short Cap Screw
*DR-235	Unqualified Cadwelder
*DR-236	Piston Wrist Pins in TDI Diesels
DR-237	Orifice Plate Bore Size Does Not Match Calculation
**DR-238	PSA Snubbers with Bergen Patterson
DR-239	RHR Isolation Valve; GE Drawing in Error
**DR-240	West SA 1 Differential Relays
*DR-241	Voltage Regulator on TDI Diesel "A"
DR-242	Fractured Motor Pinion Gear in MOV by Limitorque

**DR-243	Incompatible Parts of Component Supports
*DR-244	Fuel Pool Lining Material Supplied by Northern Steel Corporation
DR-245	CRD Inlet Line in the CRD Housing; Incomplete Shop Weld by CB&I
**DR-246	PSI Minimum Wall Discrepancy of B. F. Shaw Shop Weld
DR-247	Fabrication of Pipe Anchor Clamp
*Dr-248	Fabrication of Pipe Anchor Clamp
**DR-249	W. J. Woolley Personnel Airlock Doors
**DR-250	Leakage in Pressure Transmitter Supplied by Rosemount
DR-251	Penetration Mid-Guard Restraint Design Does Not Provide Dead Weight
DR-252	No PWHT Performed in Tryunion Welds Supplied by B. F. Shaw Company
**DR-253	Limitorque SMB-000 Valve Operators
*DR-254	Closure Spring on Dampers 1HVR*OMP99 and 1HVR*OMP100 are Defective
**DR-255	GE Supplied Topaz Inverters
**DR-256	TDI Diesel Generator or Var and Watt Meter Scales
*DR-257	Schedule 80 Nipples on Valves Do Not Agree With the Connecting Lines Pipe Schedule of 160
**DR-258	Containment Isolation Valve Leakage Rate
**DR-259	Terminal Blocks in MCC; Loss of Continuity
**DR-260	CRD Scram Discharge Volume Drain Line

DR-261	ITE Rowan Aux Relays
*DR-262	Diesel Generator Starting and Field Flashing Circuit
DR-263	NGS-01 Rockbestos Cable
DR-264	Wiring Separation Problem C61-P001 Remote Shutdown Panel
**DR-265	Shielded Cable Conductors in Standby Diesel Generator
DR-266	Snubber Interference Between Clamp Ears and Paddle Welds
DR-267	Optical Isolators Supplied by GE
DR-268	45 Rosemount Trip Units
*DR-269	Radial Bearing Thermocouple Adapters
DR-270	Gaps Between Containment Penetration Pipe and Restraint Lugs
DR-271	Conax Containment Penetrations for RTD's
DR-272	Pipe Hanger Pins on Recirculation Piping
DR-273	Environmental Zones for Rosemount Transmitters
DR-274	Improperly Rated Field Wiring to Solenoid Valves
DR-275	Variable Inlet Vane Assembly on Buffalo Forge Fans; Stud Broke Off
**DR-276	RCIC Suction Valve (Condensate Storage Tank Suction Lines)

3. Part 21 Reports

No 10 CFR Part 21 reports were issued by the licensee during this assessment period.

C. Major Site Activities

This assessment period for River Bend began on August 1, 1983, with construction being reported at approximately 74% complete. The following major activities were accomplished during the assessment period.

1. The reactor pressure vessel system outflush was completed in February 1984.

2. The reactor pressure vessel system hydrostatic test was completed in May 1984.

3. The containment shield building was completed in May 1984.

4. The reactor recirculation system hot flow test was completed in December 1984.

This assessment period for River Bend ended on December 31, 1984, with construction being reported at approximately 95% complete.

D. Major NRC Inspection Activities

Major NRC inspection activity during this assessment period included a significant increase in NRC Region IV inspection effort and four major team inspections were conducted. During February and March 1984, the NRC brought the mobile NDE van to River Bend and a team of inspectors performed independent examination and inspection of selected safety-related piping, structural and support weldments. During April, May, and June 1984, the NRC IDI team conducted an independent design inspection focusing on the low pressure coolant injection mode of the residual heat removal system and the automatic depressurization system. During July and August 1984, the NRC CAT conducted a team inspection of selected hardware, selected portions of the quality assurance program, procedures, records, work activities, and other areas relating to project construction controls. During December 1984, the Emergency Preparedness appraisal was conducted.

E. Escalated Enforcement Actions

No escalated enforcement actions were taken by the NRC during the assessment period and none are pending.

F. Management Conferences Held During Appraisal Period

Although several management meetings between NRC management and licensee management were conducted during this assessment period, no official management conferences were held.

Attachment 2 to SALP Board Report

Docket No.: 50-458

FACILITY: River Bend Station

APPLICANT: Gulf States Utilities Company

EVALUATION PERIOD: September 1, 1983 to December 31, 1984

PROJECT MANAGER Edward J. Weinkam, III

I. Introduction

This report contains NRR's input to the SALP review for River Bend Station (RBS). The assessment of the applicant's performance was conducted according to NRR Officer Letter No.44, NRR Inputs to SALP Process, dated January 3, 1984. This Office Letter incorporates NRC Manual Chapter 0516, Systematic Assessment of Licensee Performance.

II. Summary

NRC Manual Chapter 0516 specifies that each functional area evaluated will be assigned a performance category (Category 1, 2, or 3) based on a composite of a number of attributes. The performance of Gulf States Utilities Company in the functional area of Licensing Activities is rated Category 2.

III. Criteria

The evaluation criteria used in this assessment are given in NRC Manual Chapter 0516 Appendix, Table 1, Evaluation Criteria with Attributes for Assessment of Licensee Performance.

For NRR licensing activities during this period, two of the evaluation criteria were not applicable to the NRR review during the construction phase and in one area insufficient information was available to adequately assess performance. These were Enforcement History and Reporting, Analysis of Reportable Events and Training and Qualification Effectiveness. Therefore, the composite rating is based on the following evaluation criteria:

a. Management Involvement and Control in Assuring Quality

b. Approach to Resolution of Technical Issues from a Safety Standpoint

c. Responsiveness to NRC Initiatives

d. Staffing (Including Management)

Additionally, Gulf States Utilities Company's performance in other functional areas of Safety-Related Components-Mechanical and Quality Programs and Administrative Controls Affecting Quality are included in the assessment.

IV. Methodology

This evaluation represents the integrated inputs of the Licensing Project Manager (LPM) and those technical reviewers who expended significant amounts of effort on RBS licensing actions during the current rating period. Using the guidelines of NRC Manual Chapter 0516, the LPM and each reviewer applied specific evaluation criteria to the relevant licensee performance attributes, as delineated in Chapter 0516, and assigned an overall rating category (1, 2 or 3) to each attribute. The reviewers included this information as part of each Safety Evaluation Report transmitted to the Division of Licensing. The LPM, after reviewing the inputs of the technical reviewers, combined this information with his own assessment of applicant performance and, using appropriate weighting factors, arrived at a composite rating for the applicant. This rating also reflected the comments of the NRR senior executive assigned to the RBS SALP assessment. A written evaluation was then prepared by the LPM and circulated to NRR management for comments, which were incorporated in the final draft.

The basis for this appraisal was the applicant's performance in support of licensing actions that were either completed or had a significant level of activity during the current rating period.

These actions consisted of responses to open items identified in the Draft Safety Evaluation Report; resolution of outstanding items identified in the Safety Evaluation Report (NUREG-0989) issued in May 1984; responses to topics raised during the operating license application review by the Advisory Committee on Reactor Safeguards (ACRS); responses to staff initiatives during the environmental review including the Draft Environmental Statement (DES) and the Final Environmental Statement (FES); participation in the safety hearings conducted by the Atomic Safety and Licensing Board (ASLB); and submittals requesting the review of changes to certain commitments in the FSAR as plant construction cost-reduction efforts.

V. Performance Analysis

A. Management Involvement and Control in Assuring Quality

The applicant continues to demonstrate evidence of prior planning and assignment of priorities and the decision making process appears to be at a level which ensures management review. Management involvement is evident in policy, design and operational considerations and the applicant

continues to maintain a positive and open interactive role with the staff. The applicant demonstrates adequate understanding of staff policies and makes licensing decisions based upon adequate review. Appropriate levels of management are present and directly involved in all meetings. As a result, positions taken by GSU tend to be sound and those which the company is in a position to stand behind.

Nonetheless, certain aspects of management involvement have been weak or misdirected and have been noted by the staff. Specifically, the staff requested the utility commit to comply with Revision 3 of Regulatory Guide 8.8 and such commitment was provided only after additional discussion. In addition the utility requested the staff approve the modification of commitments in the Final Safety Analysis Report which involve relaxations or changes to various codes and Regulatory Guides. These relaxations or changes are tied to cost-savings in the construction process or as corrections to discrepancies identified during construction.

GSU has displayed a corporate commitment to resolution of issues through participation in various licensee review groups and owners groups. The staff views the approach and attitude as indicative of a positive attitude towards management involvement and control in licensing activities.

The applicant is rated Category 2 in this area.

B. Approach to Resolution of Technical Issues From a Safety Standpoint

Responses to NRC inquiries by GSU have been generally viable with technically sound, conservative and thorough approaches in most cases. The applicant has demonstrated a clear understanding of the technical issues involved in many review areas including containment systems and instrumentation and control. The applicant was willing to perform additional studies, as necessary, to resolve technical issues. When the staff and applicant have held differing technical positions, GSU has provided a sound basis for its position. In one area, TMI Item II.K.3.18, Modification of Automatic Depressurization System Logic, GSU initially sought a different approach to resolution of this issue. GSU was aggressive in meeting with the staff to establish a clear understanding of the safety issue involved and was diligent in pursuing the issue to closure.

While GSU is aggressive in resolving many safety issues, the staff feels that the utility has relied on its architect-engineer for technical responses far too often. Additionally, GSU has proposed several modifications to staff approved FSAR commitments. These proposed modifications have involved relaxations to commitments to support construction efforts.

Since staff attention was necessary to obtain thorough responses in some areas or rereview earlier commitments to accommodate GSU requests for

change approvals (some of these requests are driven by construction practices rather than safety), the applicant is rated Category 2 in this area.

C. Responsiveness to NRC Initatives

In some cases the applicant took the initiative to resolve issues by requesting conference calls and meetings and promptly followed-up these initiatives with submittals or responses. Responses were generally technically sound and addressed the staff's concerns. However, some submittals were delayed from the target dates due to prioritization by the applicant. The prioritization was driven by efforts which resulted in cost-savings or in meeting construction schedule milestones. Once received, most responses are technically sound and address the majority of the concerns. When cost savings are involved, whether an open issue or not, submittals and follow-up correspondence was immediate. This prioritization of issue resolution by the applicant was sometimes troublesome to the staff

The applicant is rated Category 2 in this area.

D. Enforcement History

(Not Applicable)

E. Reporting and Analysis of Reportable Events

(Not Applicable)

F. Staffing (including Management)

Positions within the applicant's organization are identified and authorities and responsibilities are well defined. GSU licensing and engineering groups appear to be well staffed as indicated by representatives at review meetings and site visits. GSU consistently has in attendance sufficient technical staff to discuss review items. GSU licensing has been particularly responsive, supportive and effective. The licensing group has been an asset to the utility in the operating license review.

Staffing at RBS is well advanced and the applicant is rated Category 1 in the area.

G. Training and Qualification Effectiveness

Insufficient basis for rating

H. Other Functional Areas

1. Safety-Related Components - Mechanical

GSU has made strong efforts to complete the Pump and Valve Operability Review Team (PVORT) and Seismic Qualification Review Team (SQRT) audits. While the staff found the personnel involved to be helpful and knowledgable, the state of these two programs was not as complete as was desired. The audits found deficiencies which could have been avoided if more time had been available in preparation for the audits. The audits also identified a programmatic need for a defined, structured procedure to provide a "check-off" list for qualification efforts. The GSU priority of meeting the scheduled milestones was predominant and the audits were not as successful as they could have been.

As a result of scheduling priorities and the amount of staff time involved in preparing for and conducting the audit (not withstanding the good support provided by the most knowledgeable GSU PVORT and SQRT personnel), the applicant is rated Category 2 in this area.

2. Quality Programs and Administrative Controls Affecting Quality

GSU has good quality control of information presented to NRR and ensures that commitments provided by letter are included in the FSAR when required. However, to meet schedules and milestones, the applicant has scheduled staff audits and site visits and reviews before they were ready. Most notably the SQRT, PVORT and I&C audits were held on schedule but the facility state of completion was not as far along as the staff had expected. The applicant's personnel have done excellent work in supporting the staff but are restricted by schedular constraints.

The applicant is rated Category 2 in this area.

VI. Conclusion

An overall rating of Category 2 is assigned for GSU's performance in the area of Licensing Activities for River Bend Station. The applicant was also rated Category 2 during the previous SALP period. Improvements in performance were made by taking the initiative to resolve open items and most responses have been thorough, though not always timely. It is felt the construction priority has resulted in a delay in resolution of some open issues and that meeting the construction completion schedule is the ultimate goal. Excellent support has been provided by GSU's licensing personnel.

VII. Board Recommendation

GSU should continue to take the initiative in resolving items in support of its schedule for fuel load, place more emphasis on closing issues rather than meeting milestones and continue to provide management involvement in significant review areas.

Enclosure 1 to Attachment 2

NRR Input for SALP Report

Licensing Activities

1. Analysis

Evaluation and monitoring of licensing activities included routine contact between the NRC and GSU as well as conference calls, site visits, meetings and audits, as required. The major licensing activities during this assessment period involved the continuation of the NRC staff review of the FSAR and ER, issuance of the Draft Environmental Statement, the Safety Evaluation Report and Supplement 1 to the Safety Evaluation Report, preparation for and conduct of the ACRS meetings and the prehearing conference and safety hearings.

The applicant continues to demonstrate adequate understanding of staff policies and maintains a positive and open interactive role with the staff. Appropriate levels of management are involved in the licensing process and GSU's responses are generally sound technically, though not always timely. GSU has displayed a corporate commitment to resolution of open issues through participation in various review groups and owners associations. The staff views these approaches and attitudes as indicative of a positive attitude towards management involvement and control in licensing activities.

Responses to issues are generally technically sound though, at times, the utility tends to rely too heavily upon its architect-engineer. GSU usually takes a conservative position in problem resolution but quite often will revise corporate positions as a result of new information which will result in construction cost-reduction. In some areas where the plant design deviates from the standard Mark III containment, the staff has had to prompt the utility to provide additional information to verify the conservatisms in the design. Many issues remain characterized as confirmatory and the applicant needs to continue the aggressive attitude towards issue resolution which he has recently assumed.

The staffing of the facility in engineering and licensing appears to be adequate and GSU provides the requisite technical representation for all meetings with the staff. The licensing staff has been particularly supportive and is considered an asset of the utility.

Schedular commitments and milestones are viewed by the staff as paramount in the utility's planning. That is, plans and dates established early in the review process become carved in stone and the applicant pushes to meet the date. This has, on occasion, led to less than satisfactory audits. The utility needs to become more flexibile in scheduling and should maintain a clear understanding of licensing activities and there impacts.

2. Conclusion

An overall rating of Category 2 is assigned for GSU's performance in the area of licensing activities for River Bend Station. The applicant was rated Category 2 during previous SALP period.

3. Board Recommendation

GSU should continue to take the initiative in resolving items in support of its schedule for fuel load.