

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Report No. 50-458/80-10

Docket No. 50-458

Category A2

Licensee: Gulf States Utilities
Post Office Box 2951
Beaumont, Texas 77704

Facility Name: River Bend Station, Unit No. 1

Meeting at: Baton Rouge, Louisiana (September 17, 1980)

NRC Participants:

K. V. Seyfrit 10/6/80
K. V. Seyfrit, Director, Region IV Date

W. C. Seidle 10/6/80
W. C. Seidle, Chief, Reactor Construction
and Engineering Support Branch Date

W. A. Crossman 10/3/80
W. A. Crossman, Chief, Projects Section Date

A. B. Beach 10/2/80
A. B. Beach, Reactor Inspector, Projects Section Date

Approved by:

W. A. Crossman 10/3/80
W. A. Crossman, Chief, Projects Section Date

Meeting Summary

Meeting on September 17, 1980 (Report No. 50-458/80-10)

Meeting Topics: Announced meeting with GSU corporate management concerning the evaluation of the licensee's performance.

DETAILS SECTION

1. Persons Contacted

Principal Licensee Employees

L. Humphreys, Senior Vice-President, Engineering and Construction
W. J. Cahill, Jr., Senior Vice-President, River Bend Nuclear Group
T. C. Crouse, Director, Quality Assurance
J. E. Wimberly, Superintendent, Site Construction
K. C. Hodges, Quality Assurance Engineer
P. D. Graham, Supervisor, Quality Engineering
J. E. Booker, Manager, Technical Programs

NRC Participants

K. V. Seyfrit, Director, Region IV Office of Inspection and Enforcement
W. C. Seidle, Chief, Reactor Construction and Engineering Support Branch
W. A. Crossman, Chief, Projects Section
A. B. Beach, Future Resident Reactor Inspector, River Bend Station

2. Meeting With Gulf States Utilities Management

A. Purpose of Meeting

The purpose of this meeting was to describe the regional evaluation for the systematic appraisal of licensee performance. This evaluation is an integral part of the Systematic Assessment of Licensee Performance (SALP) Program which is to be implemented in accordance with the commitments of the "Action Plan for Implementing Recommendations of the President's Commission and Other Studies of TMI-2 Accident." The attached Appendix A is the performance evaluation for the River Bend facility for the period September 1, 1979, through August 31, 1980, compiled by the NRC participants and a Regional Review Board.

To begin the meeting, the Regional Director outlined the following objectives for a systematic appraisal of licensee performance:

- Identify exceptional or unacceptable licensee performance
- Improve licensee performance
- Improve the IE inspection program
- Provide and achieve a means of regional consistency in evaluating licensee performance

B. Enforcement History

The enforcement history for the River Bend facility was reviewed. The following noncompliances were issued during the period of September 1, 1979, through August 31, 1980, by NRC, Region IV IE Inspectors:

- Failure to control ordering of safety-related concrete
- Failure to follow manufacturer's instructions for the storage of reinforcing steel mechanical splice sleeves
- Failure to provide required information in a petrographic report
- Failure to provide timely notification of construction deficiencies
- Deletion of and failure to specify acceptance criteria
- Failure to identify unsatisfactory test results and follow construction specifications
- Failure to perform and failure to identify inadequate aggregate tests
- Failure to follow procedures for certification of FQC inspection personnel
- Failure to follow procedures for utilization of qualified inspection personnel for the performance in site inspection activities
- Failure to meet specification requirements for the qualification of No. 67 and No. 8 coarse aggregates
- Failure to follow procedures for the identification of training needs
- Failure to follow procedural requirements for good housekeeping
- Inappropriate accept/reject criteria for total air content in an exterior wall

The following deviations were issued during this same time period:

- Qualification of individuals as Level II inspectors who do not meet the ANSI N45.2.6 experience qualifications for a Level II capability
- Performance of QC inspection activity reviews by inspection personnel not in accordance with the ANSI N45.2.6 requirements
- Use of air entrainment admixture in Category I concrete
- Hot weather concreting
- Concrete placement

These eighteen enforcement actions (noncompliances and deviations) were issued during 603 man-hours of direct inspection at the site during nine routine NRC inspections. Special inspections and investigations were not considered in these calculations.

The NRC participants determined that had better corrective action been taken to the problems addressed in the enforcement actions, especially in the area of concreting activities, the number of enforcement actions could have been substantially lessened. The licensee attendees agreed and stated that in the future they would try to make improvements in this area.

C. Construction Deficiency Reports

The following construction deficiencies were reported by the licensee during the period September 1, 1979, through August 31, 1980:

- Irregularities of concrete materials testing
- Low yield of tensile test of mat anchor steel ring
- ASTM C227 mortar bar tests
- NDE performed during fabrication of primary shield wall by CBI
- Miscellaneous steel deficiency provided by Cives Steel
- Reinforcing steel surface imperfections
- Improper repair of rejectable cadweld
- Misalignment of computer data for safety relief valve setting
- Cold joint in Diesel Generator Building foundation slab
- Improperly qualified No. 8 and No. 67 aggregates
- Stop work Category 1 concrete-form displacement, cold joint
- Error in calculation of modulus of elasticity in shield wall

The NRC participants concluded that the threshold of reportability established by the licensee was adequate, and that the performance of reporting the deficiencies by the licensee was in accordance with the imposed requirements (reportability of construction deficiencies was discussed with the licensee in a management meeting held November 2, 1979, in Inspection Report 50-458/79-07).

D. Escalated Enforcement Actions

An immediate action letter was issued on November 6, 1979, concerning the verification of concrete ingredients used in Category 1 concrete placements. This was the only escalated enforcement action taken by the NRC during the evaluation period.

E. Licensee's Responsiveness and Ability to take Meaningful Corrective Action

The NRC participants discussed the licensee's responsiveness to IE Bulletins, IE Circulars, and IE Information Notices. It was found to be prompt and adequate to meet the necessary requirements.

Responses to NRC inspection reports and enforcement actions were then discussed. Basically, as stated earlier in this report, responses to enforcement actions need to be improved. These responses need to specifically address the problem involved, and the corrective action taken in response to the identified problems needs to be re-evaluated.

Specific examples of inadequate responses to NRC identified items of noncompliance were demonstrated in Inspection Reports No. 458/80-05, 458/80-06, and 458/80-07. Additional information was requested regarding the responses to Inspection Report No. 458/80-05 in our letter of August 15, 1980. The licensee was informed that similar requests for additional information concerning the responses in Inspection Reports No. 458/80-06 and 458/80-07 will be forthcoming.

F. Effectiveness and Attitudes in Complying with NRC Regulatory Requirements

The identification of significant trends that may be adverse to the construction of the facility or that may impair compliance with NRC regulatory requirements must be an important part of the licensee's quality assurance program. A significant trend that was observed over the evaluation period was an excessive number of specification changes deleting requirements after a problem was identified. Most of these changes were made in the nonconservative direction.

Specific examples discussed were as follows:

- False set test of cement (ASTM C451)
- Heat of hydration tests
- Correlation tests of ASTM C138 and ASTM C567
- Minimum concrete density of 135 pounds per cubic foot
- ASTM C227 mortar bar tests

- Air entrainment requirements
- Excessive gradation failures
- Control of concrete by "fear of rejecting" trucks

G. Summary

The Region IV Director, at the conclusion of the meeting, emphasized that the licensee has principal and legal responsibility for all matters associated with the construction of the nuclear power plant as specified in applicable regulations. Corporate management involvement is essential in all phases of the project to assure appropriate execution of the licensee's responsibilities.

The NRC participants stressed the importance of adequate responses to NRC enforcement actions, and emphasized the importance of specification changes and their relation to NRC commitments. It was re-emphasized that these two areas needed improvement.

3. Site Tour

Various NRC participants toured the site and observed activities in progress. On September 18, 1980, two IE inspectors observed concrete placement activities in progress. Air entrainment limits were noted to be well within acceptable industry standards, and slump adjustments were being made according to the immediate placement conditions.

No items of noncompliance or deviations were identified.

APPENDIX A

LICENSEE PERFORMANCE EVALUATION (CONSTRUCTION)

Facility: River Bend Nuclear Station

Licensee: Gulf States Utilities Company

Unit Identification:

<u>Docket No.</u>	<u>CP No./Date of Issuance</u>	<u>Unit No.</u>
50-458	CPPR-145/March 1977	1

Reactor Information:	<u>Unit 1</u>	<u>Unit 2*</u>	<u>Unit 3</u>
NSSE	General Electric	X	X
MWe	934	X	X

*Unit 2 is on an indefinite hold at the time of this inspection

Appraisal Period: September 1, 1979 through August 31, 1980

Appraisal Completion Date: September 30, 1980

Review Board Members:

- W. C. Seidle
- W. A. Crossman
- A. B. Beach
- C. R. Oberg
- L. D. Gilbert

A. Number and Nature of Noncompliance Items

Noncompliance Category:	<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>
Violations	0	X	X
Infractions	12	X	X
Deficiencies	1	X	X
Areas of Noncompliance: (List Areas as Required)	<u>Unit 1 (Points)</u>	<u>Unit 2 (Points)</u>	<u>Unit 3 (Points)</u>
Concreting Activities	82	X	X
QA Management	40	X	X
Reporting	10	X	X
Deviations (5)	0		
Total Points	132	X	X

B. Number and Nature of Deficiency Reports

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Irregularities concrete materials testing 2. Low yeild tensile strength mat ring 3. ASTM C227 mortar bar tests 4. NDE Shield Building CBI 5. Cives miscellaneous steel 6. Reinforcing steel surface imperfections | <ol style="list-style-type: none"> 7. Improper repair Cadweld 8. Relief valve setting 9. Cold joint Diesel Generator Bldg. 10. Improper qualified #8 & #67 aggregate 11. Stop work on Category I concrete 12. Modulus of elasticity error |
|---|---|

C. Escalated Enforcement Actions

Civil Penalties

None

Orders

None

Immediate Action Letters

November 6, 1979: Halt placement of concrete in safety-related structures until verification of qualification tests of concrete ingredients is assured.

D. Management Conferences Held During Past Twelve Months

November 2, 1979: Discuss 50.55(e) reporting requirements and discussion of Part 21 requirements (Inspection Report No. 50-458/79-07)

September 17, 1980: Corporate management meeting held to discuss the regional evaluation of licensee performance during the period September 1, 1979, through August 31, 1980. This meeting was also held to discuss significant trends identified in the previous inspections and to re-emphasize the importance to the licensee of meeting their commitments to the NRC requirements (Inspection Report No. 50-458/80-10)

E. Justification of Evaluations of Functional Areas Categorized as Requiring an Increase in Inspection Frequency/Scope (see evaluation sheet)

The area of Quality Assurance, Management and Training is a functional area where an increase in inspection, both in frequency and scope, will be required. The review board unanimously agreed that an increase in inspection in this area was justified in that the corrective action by the licensee taken in response to NRC identified problems needs to be improved.

The functional area of the Substructure and Foundations is an area where the inspection effort will be decreased in that much of the safety-related work in this area is completed.

The area of Concrete is a functional area where the review board again unanimously agreed that an increase in the scope of the inspection effort would be necessary. Although the amount of inspection effort already performed in this area is substantial, more inspection time must be expended until the placeability problems, discussed during the management meeting on September 17, 1980, are solved.

Inspection
Frequency and/or Scope

FUNCTIONAL AREA	INCREASE	NO. CHANGE	DECREASE
1. Quality Assurance, Management & Training	X		
2. Substructure & Foundations			X
3. Concrete	X		
4. Liner (Containment & Others)		X	
5. Safety-Related Structures		X	
6. Piping & Hangers (Reactor Coolant & Others)		X	
7. Safety-Related Components (Vessel, Internals & HVAC)		X	
8. Electrical Equipment		X	
9. Electrical (Tray & Wire)		X	
10. Instrumentation		X	
11. Fire Protection		X	
12. Preservice Inspection		X	
13. Reporting		X	