

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

Report: 50-458/82-09
50-459/82-01

Docket: 50-458
50-459

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

Facility Name: River Bend Units 1 & 2

Inspection at: River Bend

Inspection Conducted: July 1, 1982 through July 31, 1982

Inspector: Ross L. Brown
Ross L. Brown, Senior Resident Inspector

8/16/82
Date

Approved: W. A. Crossman
W. A. Crossman, Chief, Reactor Project Section B

8/23/82
Date

Inspection Summary:

Inspection Period July 1-31, 1982 (NRC Inspection Report 50-458/82-09;
50-459/82-01)

Areas Inspected: Routine, announced inspection by the Senior Resident Inspector (SRI) including site tour; follow up of previous inspection findings; safety-related pipe welding; licensee identified construction deficiencies; and offsite equipment storage activities. The inspection involved 125 hours by the NRC Resident Inspector.

Results: No violations or deviations were identified in the three areas inspected.

DETAILS1. Persons ContactedPrincipal Licensee Employees

- *P. D. Graham, Director, Quality Assurance
- R. B. Stafford, Supervisor, Quality Assurance
- *K. C. Hodges, NRC Compliance Coordinator, Quality Assurance
- W. J. Reed, Director, Nuclear Licensing (Beaumont)
- L. A. England, Lead Licensing Engineer (Beaumont)
- R. J. King, Licensing Engineer (Beaumont)
- D. W. Reynolds, Supervisor, Administration Support

Stone and Webster Personnel

- *R. L. Spence, Superintendent, Field Quality Control (FQC)
- B. R. Hall, Field Quality Control
- N. W. Pressler, FQC Chief Inspector, Electrical
- R. J. Fay, FQC Supervisor, Electrical
- A. Clawson, FQC Inspection Supervisor
- D. M. Cowart, FQC Senior Inspector
- R. W. Ferguson, FQC, Senior QC Engineer

Riverside Central Services, Inc.

- A. Brown, Vice President, General Manager

The SRI also interviewed additional licensee, Stone and Webster (S&W), and other contractor personnel during this inspection period.

*Denotes those persons that attended the management interviews.

2. Site Tour

The SRI toured most areas of the site during the inspection period to observe construction progress, general job practices, housekeeping, fire protection, and to familiarize himself with the facility.

3. Offsite Storage of Unit 2 Material and Equipment (50-459)

The SRI toured the Riverside Central Services, Inc. (RCSI), storage facility in Natchez, Mississippi, that has a contract with GSU to store Unit 2 material and equipment in accordance with the following Level B requirements:

Items are stored indoors within a fire-resistant, tear resistant, weather-tight, and well-ventilated building or equivalent enclosure.

Precautions shall be taken against vandalism. This area will not be subjected to flooding. The floor shall be paved or equal and well drained. Items shall be stored on pallets or shoring to permit air circulation. The area shall be provided with uniform heating and temperature control or its equivalent in order to prevent condensation and corrosion. Minimum temperature shall be 40° F and maximum 120° F (or less if so stipulated by a manufacturer).

RCSI maintains a Level B storage facility.

The GSU Project Procedures, RBPP 5.14, RBPP 5.15, RBPP 5.16, RBPP 5.18, and RBPP 5.20, provide guidelines for the receipt and documentation of equipment and material delivered to the offsite storage facility, either directly or from the construction site, acceptable storage methods, performance of maintenance, control and calibration of measuring and test equipment (M&TE) used in the storage maintenance programs, and defines the interface and responsibilities between GSU and S&W, General Electric (GE), and RCSI, in the conduct of the activities associated with the offsite storage.

During the tour of the facility, the SRI was shown the automatic security system that sounds an alarm and notifies the local authorities. The SRI was told that the parish sheriff's officers and park rangers patrol the area frequently but not according to a set schedule.

The SRI also observed that the facility has an automatic fire protection sprinkler system that also notifies the local fire station that is located approximately 4 miles away.

The SRI's tour of the RCSI facility and review of the following documents located either in the RCSI files or construction site files verified conformance with the defined requirements.

- Material Location Charts
- M&TE Use log
- Maintenance Action Cards
- Storage History Cards
- Weekly Printout Record (of offsite stored material and equipment)

No violations or deviations were identified.

4. Licensee Identified Construction Deficiency Reports

- a. (Closed) Deficiency Report (DR 53/GSU letter RBG 12,685 dated May 24, 1982) "Incomplete Documentation and Radiography for B. F. Shaw Rolled and Welded Pipe." The SRI's review of the following documents verified a satisfactory resolution to the River Bend Site (RBS) problem.
- (1) The S&W report of a problem, No. RBI-C-009, dated January 11, 1982, states in part, that in April 1980, approximately 1100 feet of ASME III, Class 3, 30-inch SA155 rolled plate pipe, was supplied to the site by the project pipe fabricator, B. F. Shaw. The pipe was supplied in random lengths to be used by S&W site construction in the fabrication of ASME Class III service water piping.
 - (2) The S&W letter to GSU, RBS-7698, dated June 10, 1982, states in part, that the S&W inspection function was accomplished at the site by field quality control (FQC) rather than by PQA shop inspection. During FQC receipt inspection, pipe was rejected for incomplete documentation and radiography discrepancies. As a result of reradiography of questionable pieces performed by S&W construction forces, 11 pipe seam welds out of 67 were determined to be rejectable. Of the 11 rejects, only 3 (Piece Nos. 23, 28, and 30) exhibited planar defects which were limited to sizes of $\frac{1}{2}$ -inch or less in length. The balance of rejects was due to surface irregularities, small slag indications, and minor porosity. All pipe was hydrostatically tested prior to repair to test pressures in excess of the pressure required (3.75 times design pressure) to demonstrate integrity for the intended use of the pipe. Based on an engineering evaluation of the above information, it was concluded that none of the rejects constitute a deficiency which, had it remained uncorrected, could have adversely affected the integrity of the pipe or the safety of plant operations. However, the 11 rejected welds were repaired by S&W construction to be in conformance with the design requirements of the ASME Code.
 - (3) The SRI reviewed the referenced N&D's that: identifies the 11 rejected pipe seam welds, lists the type and size of defects, specifies the method of repair, states the nondestructive examination requirements, gives the technical justification, and reinspection acceptance. The N&D's have been approved by the appropriate personnel including the authorized nuclear inspector.

- (4) GSU memorandum, RBG 12,843, dated June 17, 1982, states that the S&W letter, RBS 7698, was reviewed by GSU engineering and quality assurance and they concur with the S&W conclusion that the problem was not reportable under 10 CFR 50.55(e) requirements.
- b. (Closed) Deficiency Report (DR 54/GSU letter RBG 12,686 dated May 24, 1982) "B. F. Shaw Rolled Plate Pipe with Internal Mismatch, Out-of-Roundness, and Laminar Discontinuities." This pipe is part of all of the pipe identified in DR 53 (Item 4.a). The SRI's review of the following documents verified a satisfactory resolution to the RBS problems, and it was not reportable under the requirements of 10 CFR 50.55(e).
- (1) The S&W letter to GSU, RBS 7693, dated June 8, 1982, that identifies and evaluates the problems encountered during fabrication of the spool pieces at the jobsite states:
- (a) Internal Mismatch at the Seam Welds. This represented a problem preventing proper fitup of the field weld. The condition was noted on the referenced N&D's, and corrected during fabrication. There were no violations of the material specification and no deficiency existed in the raw material as supplied, which could have adversely affected pipe performance and thereby degrade plant operation.
 - (b) Out-of-Roundness. There is no indication that specification roundness criteria was violated during manufacture of the raw piping material. The out-of-roundness condition was noted on the referenced N&D's and corrected during fabrication of the spool pieces and therefore, the pipe performance or plant safety was not affected.
 - (c) Laminar Discontinuities. This type of discontinuity is caused during the plate-rolling process and is not significant from a pipe performance or safety standpoint. There are no code requirements prohibiting the existence of lamination in Class 3 pipe.
 - (d) The GSU memorandum RBG 12, 842, dated June 17, 1982, states that the S&W letter, RBG 7698, was reviewed by GSU QA, construction, and site engineering, and they concur with the evaluation in that the condition is not reportable under 10 CFR 50.55(e) requirements.

- c. (Closed) Deficiency Report (DR 55/GSU letter RBG 12,693 dated May 24, 1982) "Omission of Excavation Depth from Weld Data Sheets." The SRI reviewed the following documents to determine if the condition should be reportable under 10 CFR 50.55(e) requirements.
- (1) N&D No. 2159 that required the depth of the excavation to be recorded on the applicable weld data sheet.
 - (2) Two applicable MT reports that recorded the size of the two excavation as 3/8-inch long X 1/8-inch deep.
 - (3) S&W letter, RBS 7728, dated June 23, 1982, to GSU that states in part, that from their evaluation, they concluded that this condition, were it to have remained uncorrected, could not have adversely affected the safety of operation of the plant at any time throughout the expected lifetime, and that this problem is not reportable under 10 CFR 50.55(e) requirements.
 - (4) The GSU memorandum, RBG 12,871, dated June 23, 1982, states that GSU QA, construction, and site engineering, have reviewed S&W letter RBS 7728, and concur that the deficiency is not reportable under 10 CFR 50.55(e).

It does not appear that this condition is reportable under the requirements of 10 CFR 50.55(e). However, S&W documented two training sessions conducted with construction, engineering, and QA personnel to emphasize the importance of following the specified instruction.

5. Safety-Related Pipe Welding

The SRI reviewed the S&W Specification 228.160, "Field Fabrication and Erection of Piping," for ASME III, Code Classes 1, 2, and 3, and ANSI B 31.1 Class 4, which specifies the weld control requirements related to: the alignment, weld material control, applicable codes and standards, weld data sheets, weld profile and finish, cleaning, and nondestructive examination.

The SRI observed the welding of two safety-related pipe welds in the auxiliary building and reviewed the procedures and documentation at these work stations and verified that the activity was being performed in accordance with the applicable drawings and weld data sheets that appear to satisfy the specifications, codes, and standards.

No violations or deviations were identified in this area.

6. Licensee Action on Previous Inspection Findings

(Closed) Infraction (50-458/80-06): Failure to Follow Procedures for Identification of Training Needs. The SRI verified that CSI 1.0.21 was revised to require a semiannual training needs survey to be made by the construction training staff. The training staff is required to compile the survey results and develop a long-term (12 month) training forecast. Also, based on the needs identified by the survey or development requests, the training staff will assure availability of appropriate training material.

The SRI reviewed the GSU QA Action Item Report No. 80-06-A, that identified 21 reports of follow up in the crafts training area during 1980, 1981, and 1982.

The SRI also verified implementation of the program described in the GSU response letter RBG 8369, dated August 20, 1980. This item is considered closed.

(Closed) Unresolved Item (50-458/81-10): Specification Requirements Regarding Installation of Drilled-In Expansion Anchors. The SRI reviewed the changes to S&W Specification 210.371 specified in the approved copy of Engineering and Design Coordination Report (E&DCR) C-3599A, that designates the seismic and QA category structures, specified the QA program requirements for each category, establishes the visual inspection frequency for each category, and establishes the procedures to be followed if reinforcing steel is struck during the drilling of anchor holes.

The SRI also reviewed S&W letter RBS 7286, that states in part, that S&W has reviewed Specification 210.371, and it contains installation, testing, and inspection requirements consistent with IE Bulletin 79-02. Additionally, E&DCR C-3599A clarifies and quantifies certain procedures that may lead to confusion during installation.

The SRI reviewed S&W letter RBS 4114, that states in part, that the project plans to use embedded plates in concrete wall for pipe supports. However, base plates will be incorporated as an alternate means of supporting Category 1 pipe via concrete expansion bolts. In the event this becomes necessary, the effects of base plate flexibility will be accounted for in the design. S&W has an approved procedure developed on the basis of finite element analysis which considers base plate flexibility. This item is considered closed.

7. Pipe Support Installation

The SRI reviewed the S&W Specification 228.312, Revision 0, Addendum 4, "Field Fabrication and Erection of Pipe Supports ASME III, Code Class 1, 2, and 3, and ANSI B 31.1," to determine the requirements specified for the installation of ASME III, Subsection NF, Class 2 pipe supports.

The SRI's review of the following documents pertinent to the installation of three pipe supports verified conformance with the specified requirements.

- Pipe Hanger Record Sheets
- Hanger Drawings
- Weld Data Sheets
- Inspection Reports
- Nonconformance and Disposition Reports
- Construction Revision Notice
- Weld Material Request
- Visual Examination Reports
- Final Documentation Checklist

All documents were complete and properly signed by the appropriate individual including the authorized nuclear inspector.

No violations or deviations were identified.

8. Management Interviews

The SRI met with one or more of the persons listed in paragraph 1 at various times during the inspection period. A meeting was conducted on August 5, 1982, to discuss the scope of the inspection and findings with those persons identified by an asterisk in paragraph 1.

INSPECTOR'S REPORT
Office of Inspection and Enforcement

ROSS L. BROWN
REVIEWER
W. A. CROSSMAN

INSPECTORS
ROSS L. BROWN

LICENSEE/VENDOR	TRANSACTION TYPE	DOCKET NO. (8 digit) OR LICENSE NO. (BY PRODUCT) (13 digit)		REPORT		NEXT INSP. DATE	
		NO.	SEQ.	NO.	SEQ.	MO.	YR.
GULF STATES UTILITIES	<input checked="" type="checkbox"/> I - INSERT	05000458		8209	A		
	<input type="checkbox"/> M - MODIFY	05000459		8201	B		
	<input type="checkbox"/> D - DELETE				C		
	<input type="checkbox"/> R - REPLACE				D		

PERIOD OF INVESTIGATION/INSPECTION						INSPECTION PERFORMED BY			ORGANIZATION CODE OF REGION/HQ CONDUCTING ACTIVITY (See EMC 0530 Manpower Reporting - Weekly Manpower Reporting for code)		
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REGIONAL ACTION (Check one box only)	TYPE OF ACTIVITY CONDUCTED (Check one box only)			
<input type="checkbox"/> 1 - NRC FORM 591	<input checked="" type="checkbox"/> 02 - SAFETY	<input type="checkbox"/> 06 - MGMT. VISIT	<input type="checkbox"/> 10 - PLANT SEC.	<input type="checkbox"/> 14 - INQUIRY
<input checked="" type="checkbox"/> 2 - REGIONAL OFFICE LETTER	<input type="checkbox"/> 03 - INCIDENT	<input type="checkbox"/> 07 - SPECIAL	<input type="checkbox"/> 11 - INVENT. VER.	<input type="checkbox"/> 15 - INVESTIGATION
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INSPECTION/INVESTIGATION FINDINGS (Check one box only)				TOTAL NUMBER OF VIOLATIONS AND DEVIATIONS	ENFORCEMENT CONFERENCE HELD	REPORT CONTAIN 2790 INFORMATION	LETTER OR REPORT TRANSMITTAL DATE							
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4 - VIOLATION & DEVIATION														

MODULE INFORMATION														MODULE INFORMATION															
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TYPE	NUMBER	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL	SEC	PRIORITY	DIRECT INSPEC. TIME EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION			PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL	TYPE	NUMBER	PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL	SEC	PRIORITY	DIRECT INSPEC. TIME EFFORT IN STAFF HOURS EXPENDED THIS INSPECTION			PHASE	MANUAL CHAPTER	PROCEDURE NUMBER	LEVEL
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B	1292702				B	A		028					B	099020B					A										
B	1250090				C	A		1010010					B						A										
B	1253083				C	A		10112010					B						A										

INSPECTOR'S REPORT
(Continuation)
Office of Inspection and Enforcement

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REPORT

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V I O L A T I O N S E V E R I T Y O R D E V I A T I O N

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