

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-458/89-21

Operating License: NPF-47

Docket: 50-458

Licensee: Gulf States Utilities (GSU)
P.O. Box 220
St. Francisville, LA 70775

Facility Name: River Bend Station

Inspection At: River Bend Station (RBS), St. Francisville, LA

Inspection Conducted: April 24-28, 1989

Inspector:

H. F. Bundy
H. F. Bundy, Reactor Inspector, Test Programs
Section, Division of Reactor Safety

5/10/89
Date

Approved:

W. C. Seidle
W. C. Seidle, Chief, Test Programs Section
Division of Reactor Safety

5/10/89
Date

Inspection Summary

Inspection Conducted April 24-28, 1989 (Report 50-458/89-21)

Areas Inspected: Routine, unannounced inspection including surveillance test observation and followup on operating events.

Results: The surveillance tests observed were competently performed in accordance with the test procedures and administrative controls. Test exceptions were appropriately dispositioned, and retesting was performed in accordance with administrative requirements. The operating event reviewed by the NRC inspector appeared to have been appropriately dispositioned.

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DETAILS

1. Persons Contacted

GSU

- *J. C. Deddens, Senior Vice President, RBNG
- *T. F. Plunkett, Plant Manager
- *L. A. England, Director - Licensing
- *J. E. Booker, Manager - RBS Oversight
- *T. C. Crouse, Manager - Quality Assurance
- *P. E. Freehill, Outage Manager
- *K. E. Suhrke, Manager - Project Management
- *M. F. Sankovich, Manager - Engineering Department
- *H. J. Hollkamp, Supervisor - Operational Scheduling
- *G. A. Bysfield, Control Systems Supervisor - Field Engineering
- *D. N. Lorfing, Senior Licensing Engineer - Licensing
- M. S. Feltner, Engineer - Nuclear Licensing
- R. Womack, Systems Engineer - Field Engineering
- W. Walling, Inservice Testing Coordinator - Field Engineering

Other

- *D. E. Hill, Lead Control Engineer, SWEC
- *W. L. Curran, Site Representative, Cajun Electric Cooperative

NRC

- E. J. Ford, Senior Resident Inspector
- *W. B. Jones, Resident Inspector

The NRC inspector also interviewed other licensee employees during the inspection.

*Denotes those attending the exit interview on April 28, 1989.

2. Surveillance Test Observation (61701)

The purpose of this part of the inspection, was to ascertain that functional testing of the selected equipment and systems was performed in accordance with regulatory requirements, applicable industry standards, and licensee's procedures. The NRC inspector selected the following procedures for review and witnessing of related test activities:

- ° Surveillance Test Procedure (STP)-309-0603, Revision 8, "Division III 18 Month Emergency Core Cooling System (ECCS) Test"
- ° STP-201-3601, Revision 5, "Standby Liquid Control (SLC) Injection Test"

The NRC inspector found that both STPs were responsive to Technical Specification (TS) requirements and clearly identified acceptance criteria. For STP-309-0603, the NRC inspector attended the pretest briefing. The test director effectively covered test objectives, individual test personnel assignments, and precautions and limitations. All participants appeared to understand their responsibilities clearly. The NRC inspector witnessed the high pressure core spray (HPCS) loss of power (LOP)/loss of coolant accident (LOCA) initiation sequence simulation and subsequent system restoration. This portion of the test progressed smoothly, and few test deficiencies were identified. All acceptance criteria were satisfied.

The NRC resident inspector witnessed the LOP without LOCA portion of STP-309-0603 and advised the NRC regional inspector that this portion of the test also proceeded smoothly. However, when the data was reduced, it was discovered that the emergency diesel generator (EDG) output breaker did not close at less than or equal to 10 seconds from the EDG auto start signal as required by TS. It actually took 10.1 seconds.

Prior to the retest, the licensee readjusted the EDG control circuits. The major adjustment made was decreasing the time for flashing the generator field from 5 to 4.5 seconds after the EDG achieved 150 rpm. The NRC inspector observed the retest time to be 9.7 seconds.

During further investigation of the above failure, the NRC inspector discovered the following facts:

- ° The time for closure of the EDG output breaker following the auto start signal has typically been 9.9 to 10 seconds. The minimum design time is 9 seconds.
- ° The HPCS pump typically achieves rated flow during surveillance tests in approximately 12 seconds. The value assumed in the safety analysis is 26 seconds.
- ° A similar plant has a TS value of 13 seconds for the EDG auto start time.
- ° The licensee is considering requesting a relaxation of the TS value of 10 seconds for EDG auto start because of the difficulty of meeting this requirement and the possibility of imposing additional starts on the EDG if it is not met.

Based on the limited information available to the NRC inspector, the licensee's pursuit of relaxation of the EDG starting time requirement appears appropriate.

In performing prerequisites for STP-201-3601, the chemistry department advised the test director that there was approximately 450 ppb sodium pentaborate in liquid contained in the SLC piping. The requirement was no detectable sodium pentaborate. The licensee submitted a procedure change allowing it to inject this liquid into the reactor coolant system (RCS) based on the theory that when mixed with the RCS coolant, the sodium pentaborate would not be detectable. The shift supervisor refused to approve this change based on the following:

- ° It was possible to remove the sodium pentaborate from SLC piping by flushing.
- ° No basis was given for changing the requirement from no measurable sodium pentaborate to a calculable amount.

Given the information available this appeared to be a prudent decision. Because of the delay caused by this problem, the NRC inspector did not witness the actual SLC injection.

No violations or deviations were identified in the review of this program area.

3. Followup on Operating Events (93702)

The NRC inspector reviewed RBS Condition Report (CR) 89-0207 involving failure to perform an as-found local leak rate test (LLRT) prior to unbolting the blind flange on the fuel transfer tube. The data from the LLRT test is used to correct the results of the containment integrated leak rate test (CILRT), which was to be performed at a later date. The CR disposition was to reinstall the blind flange with the same gaskets and perform STP-057-3801 to obtain the as-found LLRT data. Also, Memorandum DFE-240-89 was issued to outage management. It stressed the necessity of testing all components subject to LLRTs in the as-found condition.

After reviewing the results of STP-057-3801 and interviewing the dispositioning engineer, the NRC inspector concluded that the disposition for CR 89-0207 was appropriate. However, it appeared that more information should have been given in the basis for the disposition. For example, it was not mentioned that previous test results always indicated zero leakage for this component. Also, the flange installation procedure required the bolts to be torqued to the same values each time it was installed.

No violations or deviations were identified in the review of this program area.

4. Exit Interview

The NRC inspector met with the licensee representatives denoted in paragraph 1 on April 28, 1989, and summarized the scope and findings of this inspection. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the NRC inspector during this inspection.