

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 50-458/92-12

Operating License No. NPF-47

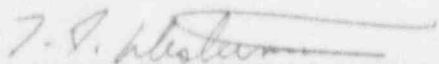
Licensee: Gulf States Utilities (GSU)
P.O. Box 220
St. Francisville, Louisiana 70775

Facility Name: River Bend Station (RBS)

Inspection At: RBS, St. Francisville, Louisiana

Inspection Conducted: April 13-16, 1992

Inspector: C. J. Paulk, Reactor Inspector, Plant Systems Section
Division of Reactor Safety

Approved:  4-27-92
T. F. Westerman, Chief, Plant Systems Section Date
Division of Reactor Safety

Inspection Summary

Inspection Conducted April 13-16, 1992 (Report 50-458/92-12)

Areas Inspected: Routine, announced inspection of the licensee's programs for quality assurance of maintenance and test equipment and calibration of instruments.

Results: Within the areas inspected, no violations or deviations were identified.

The licensee had implemented a program to assure the quality of maintenance and test equipment. The bar code system, as implemented, was a very good method for controlling the issuance of calibrated equipment.

The planning and scheduling of surveillances and preventive maintenance tasks was very good. The scheduling program, as implemented, is well controlled and provides for increased emphasis on conducting surveillances within the required time frequencies. The procedures revised according to the procedure upgrade program were well written and easy to follow. The inspector observed that the procedure review checklist (PRC) did not address acceptance criteria. The licensee promptly revised the PRC to address the inspection observation.

The following items were closed: Inspection Followup Item (IFI) 8813-02, IFI 8923-01, IFI 8923-02, and Unresolved Item (URI) 9016-02. The inspector left Deviation (DEV) 9016-01 open pending Office of Nuclear Reactor Regulation review.

DETAILS

1. PERSONS CONTACTED

GSU PERSONNEL

- *J. Cook, Technical Assistant - Licensing
- *T. Crouse, Manager - Administration
- *J. Deddens, Senior Vice President
- *S. Desai, Principal Engineer
- *L. England, Director - Nuclear Licensing
- *T. Fredieu, Supervisor, Maintenance Services
- *E. Glass, Instrumentation and Controls Supervisor
- *P. Graham, Plant Manager
- *J. Hamilton, Director - Design Engineering
- *G. Kimmel, Director - Quality Assurance
- *F. Odam, Maintenance and Test Equipment Supervisor
- *W. Odell, Manager - Oversight
- *J. Shippert, Assistant Plant Manager - Operations, Radwaste, Chemistry
- *K. Suhrke, General Manager - Engineering and Administration
- *W. Trudell, Assistant Operations Supervisor
- *R. Vachor, Senior Compliance Analyst

CAJUN PERSONNEL

- *W. Curran, Site Representative

NRC PERSONNEL

- *E. Ford, Senior Resident Inspector, RBS
- *D. Loveless, Resident Inspector, RBS

*Indicates persons present at the April 16, 1992, exit interview.

The inspector also contacted other licensee personnel during the inspection.

2. FOLLOWUP ON CORRECTIVE ACTIONS FOR PREVIOUSLY IDENTIFIED INSPECTION FINDINGS (92701 and 92702)

2.1 Followup (92701)

2.1.1 (Closed) Inspection Followup Item 458/8813-02: AKR Circuit Breakers

During a previous inspection, an inspector noted that the breaker for the diesel generator standby ventilation exhaust fan did not close on command. The licensee had not completed the evaluation and root cause analysis at that time.

The licensee tested the breakers at the vendor's facility to determine the root cause for the breakers failure to close. The licensee found that the

breaker had to be in trip free condition. This would occur when there was an overcurrent condition, the breaker tripped, and the trip circuit was not reset. The licensee found that the adjustment of the spacers on the closing mechanism buffer would also affect the operation of the breaker.

The licensee installed the additional washers, however, this did not correct the problem. The licensee investigated further and found that the fan may have been rotating in the reverse direction when a start signal was applied. This rotation caused higher starting currents for a longer period of time, resulting in an overcurrent trip of the breaker.

The licensee installed dampers to prevent reverse rotation of the fans. The dampers and adjustments to the breakers resolved the problems associated with the breakers failing to close.

The inspector reviewed the licensee's analysis and corrective actions and found them to be appropriate. This item is closed on the basis of the licensee's testing and corrective actions.

2.1.2 (Closed) Inspection Followup Item 458/8923-01: Corrective Actions for Elimination of Common Grounds for Instrumentation Circuits

During a previous inspection, an inspector noted that the licensee was experiencing spurious trips of instruments. The licensee identified the apparent cause to be an improperly installed ground circuit. The inspector was concerned that this ground circuit would affect valid signals in the instrument loops.

The licensee implemented Modification Request (MR) 88-0118 to correct the problem with spurious trips. The licensee observed the affected circuits over several months and did not observe any change. The modification did not affect the valid signals. The licensee has generated MR 91-0114 to replace the existing ground wires with lower resistance wires. The licensee planned to implement this modification during the present refueling outage.

This item is closed on the basis of the licensee's observations that valid signals were not affected.

2.1.3 (Closed) Inspection Followup Item 458/8923-02: Corrective Actions for Review of Design Changes

During a previous inspection, an inspector reviewed a Quality Assurance Finding Report (QAFR) P-89-08-019. The inspector noted that the licensee had identified a weakness relating to the timely updating of design documents associated with MRs. The licensee issued Corrective Action Report (CAR) 0-90-02 in response to QAFR P-89-08-019 to revise procedure ENG-3-006, "River Bend Design and Modification Request Control Plan." The inspector reviewed ENG 3-006 and found the licensee had addressed the issue of timely reviews. This item is closed.

2.1.4 (Closed) Unresolved Item 458/9016-02: Electrical Meter Calibrations

During a previous inspection, inspectors were not able to verify that all safety-related electrical meters were being calibrated periodically. The licensee was using several numbering systems to identify the meters and could not provide a link between the meter number and the calibration procedure.

The licensee compiled a cross-reference list to link all the numbering systems together. The inspector used this list to verify that the meters had been calibrated within the required period. The calibration schedule was verified to include those meters for periodic calibration. This item is closed.

2.2 Followup on Corrective Actions for Deviations (92702)

2.2.1 Deviation 458/901601: Deviation from Commitment to Regulatory Guide (RG) 1.97

During a previous inspection, the inspectors identified three conditions that represented deviations from the licensee's commitment to RG 1.97. The licensee acknowledged the deviation by letter dated October 11, 1991.

The conditions identified were:

The instrument displays on the control panels did not contain a specific common designation, nor was it apparent that consistent training was conducted to inform operators of which instrumentation was intended for use under accident conditions.

The hydrogen monitoring instrumentation was not being calibrated on the higher scale of the two scale instrument.

The ranges of the installed suppression pool water level instruments were different from those presented in the GSU June 24, 1985, Compliance Report which had been previously approved by the NRC.

The inspector verified that specific labels had been placed on the appropriate instrumentation on the control panels. Operators had received training on the use of post-accident monitoring instrumentation, and properly identified the RG 1.97 instruments.

The licensee requested exemptions from compliance with the RG 1.97 requirements for the hydrogen monitoring high scale and the suppression pool level by letter dated March 28, 1991. The NRC has not responded to this request. This item remains open pending NRC response.

3. Quality Assurance of Measuring and Test Equipment (35750)

The inspector evaluated the licensee's development and implementation of a quality assurance program related to the control of measuring and test

equipment (M&TE). The licensee's program was found to be in conformance with regulatory requirements, commitments, and industry standards.

The inspector reviewed Procedure ADM-0029, Revision 11, "Control of Measuring and Test Equipment (M&TE)." The equipment was found to be stored properly, to have unique identification, and to have the calibration status annotated as specified in ADM-0029. The inspector considered the bar code system used to track the issuance and calibration of M&TE to be a strength.

4. Calibration (56700)

The inspector evaluated the licensee's program for calibration activities relative to instrument components and systems. The inspector reviewed Procedure ADM-0012, Revision 13B, "Station Surveillance Test Program," and the "River Bend Station Technical Specifications Cross Reference Matrix Surveillance Test Procedures" document dated February 14, 1992.

The inspector found the scheduling of surveillance and preventive maintenance tasks to be a strength. The licensee was able to minimize the occurrence of a past due task by using this scheduling program. The licensee controlled the due date according to the Technical Specifications and ADM-0012.

The inspector reviewed the following surveillance procedures:

STP-051-4201, Revision 28, "RPS - Main Steamline Isolation Valve Closure Monthly CHFUNCT";

STP-207-4201, Revision 7, "NSSSS/RWCU/RCIC Isolation - Main Steamline Temperature High 18 Month CHCAL, 18 Month LSFT (E31-N604A, E31-N604E, E31-R617E)";

STP-207-4228, Revision 8, "RWCU Sys Isolation - Differential Flow Timer Quarterly CHCAL, 18 Month LSFT (E31-R614A)";

STP-207-5220, Revision 6, "Reactor Water Cleanup System Isolation Equipment Temperature High 18 Month CHCAL, 18 Month LSFT (E31-N602A)";

STP-500-4210, Revision 6, "Control Rod Scram Accumulator Instrumentation 18 Month CHFUNCT and 18 Month CHCAL";

STP-508-4201, Revision 7, "RPS/Isolation Actuation Instrumentation - Drywell Pressure High 18 Month CHCAL, 18 Month LSFT (C71-N050A, C71-N651, C71-N653)";

STP-552-4211, Revision 5, "Accident Monitoring - Drywell Air Temperature 18 Month CHCAL (ICMS*RTD43A)"; and,

STP-552-5203, Revision 5A, "Remote Shutdown Monitoring - Suppression Pool Water Temperature 18 Month CHCAL (ICMS*RTD40C)."

The technical content of the procedures was found to be appropriate. Procedures recently revised using the Procedure Review Checklist (PRC) were well written and easy to follow. The inspector considered this to be the result of the procedure upgrade program. The inspector observed that acceptance criteria was not addressed on the PRC. As a result, the licensee did not always provide clear acceptance criteria. For example, STP-552-4211 contained an acceptance criterion that the data be consistent with existing plant conditions. This criterion did not provide a tolerance band for the data. The licensee acknowledged this observation and promptly revised the PRC to include tolerances as needed to assess the data.

The inspector reviewed the records for the last performance of each of the above surveillance procedures. The records were completed and reviewed by the licensee as required. The inspector did notice that there was some inattention to detail. In two instances, the inspector saw write overs that were not lined out, initialed and dated as required.

The inspector reviewed the preventive maintenance schedule for performing calibrations on instruments not specifically addressed in the Technical Specification, but used to determine the operability of equipment. The inspector verified that calibrations were being performed on the emergency diesel generator fuel oil tank level, area temperature monitors, reactor pressure vessel steam space temperature, bottom head drain line temperature, scram accumulator pressure, standby liquid control temperature, and reactor vessel flange and head flange temperatures.

The inspector noted that the procedures for the calibration of the temperature elements omitted the requirement to measure the process temperature and compare with the output of the temperature element. Instrument technicians performed this step although it was not addressed in the procedure. This was considered a weakness. The licensee acknowledged this observation and stated that this would be addressed during subsequent revisions of the procedure.

The inspector did not observe any calibration activities in progress. The licensee could not perform any calibrations because of equipment problems encountered during full off-load which had been assigned higher work priorities. The resident inspectors will observe calibration activities during their monthly maintenance observations.

5. Exit Meeting

An exit meeting was held with those persons indicated in paragraph 1 on April 16, 1992. The scope and findings of the inspection were summarized as detailed in this report. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspector during this inspection.