

APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-458/90-33

Operating License: NPF-47

Docket: 50-458

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: November 26-30, 1990

Inspector:

*J. Barnes*  
*for* W. M. McNeill, Reactor Inspector, Materials  
and Quality Programs Section, Division of  
of Reactor Safety

12-19-90  
Date

Approved:

*J. Barnes*  
I. Barnes, Chief, Materials and Quality  
Programs Section, Division of Reactor Safety

12-19-90  
Date

Inspection Summary

Inspection Conducted November 26-30, 1990 (Report 50-458/90-33)

Areas Inspected: Routine and nonroutine, unannounced inspection of the document control program, records program, and followup on recent Division II standby diesel generator problems.

Results: The document control program was found to be adequately defined, with one apparent violation identified (paragraph 2.3) pertaining to the failure of document users to ensure use of current revisions of procedures. The records program was found to be adequately defined and implemented with one exception. The exception, for which a noncited violation was identified (paragraph 3.3), pertained to certain records being missing from the permanent plant files.

DETAILS

1. PERSONS CONTACTED

- \*J. W. Cook, Technical Assistant-Licensing
- \*T. C. Crouse, Manager, Administration
- \*B. J. Chustz, Maintenance Support Supervisor
- \*K. J. Giadrosich, Supervisor, Quality Engineering
- \*P. D. Graham, Plant Manager
- \*G. K. Henry, Director, Quality Operations
- B. Hubbard, Training Assistant
- R. H. Jellison, Control Operating Foreman
- \*K. F. Kennedy, Supervisor, Records Management
- \*G. R. Kimmell, Director, Quality Services
- \*C. L. Miller, Senior Compliance Analysis
- J. P. Schippert, Assistant Plant Manager
- \*K. E. Suhrke, General Manager, Engineering & Administration
- H. M. Turner, Document Control Section Head
- J. E. Venable, Assistant Operations Supervisor
- \*C. W. Walker, Supervisor, Quality Control (QC)
- B. R. Williams, QC Inspector

1.2 NRC

D. P. Loveless, Resident Inspector

\*Denotes those persons that attended the exit interview on November 30, 1990.

The inspectors also contacted other personnel including administrative and clerical personnel.

2. DOCUMENT CONTROL PROGRAM (39702)

The objective of this inspection was to ascertain whether the licensee is implementing a Quality Assurance (QA) program relating to document control that is in conformance with Technical Specifications, regulatory requirements, commitments in the Updated Safety Analysis Report (USAR), and applicable industry guides and standards.

2.2 Program

The inspectors reviewed the procedures on document control (see Attachment). The procedures provided for issuing and distributing documents as well as maintenance of indices of revision status and change notices. Current, as-built information for certain key drawings [e.g., piping and instrument diagrams (P&IDs)] was "redlined" on to the control room copies of the drawings. Document users were required to verify the current revision and change notice status of any document used. In addition to a central information resource center, there were satellite stations which maintained controlled documents.

### 2.3 Implementation

The inspectors reviewed a sample of 10 recently completed maintenance work orders (MWOs) and surveillance test (ST) reports (see Attachment). In this review, the revision and change notice status were verified for 24 different procedures, 6 different drawings and 3 different specifications that were referenced in the work documents. The inspectors observed that it was difficult to determine the revision status of documents in MWOs because there was not a record made in the MWO of the revision document used. The procedures required to perform a task were included in a MWO, but removed shortly after performance of the work. Unless there was a form used from a procedure, by the time the MWO went to the permanent plant files there was no record of the document revisions used. In review of the sample of recent MWOs completed during the current refueling outage, the inspectors found certain records in some of the MWOs which indicated that the current revision of procedures was not being used. In review of MWO R138331, which was one of 16 MWOs for the replacement of main steam safety relief valves, it was noted that torque data sheets were used from Revision 5 of Procedure GMP-0018 and not the current Revision 7. This was found to be the case for all 16 MWO packages. A review of the revision records of GMP-0018 found no significant impact on the torque activities between the revisions in question. Also, the inspectors found that MWOs R125319, R125376, and R125379, which were applicable to refurbishment and replacement of ASME Class 3 vent valve seat rings and plugs, had used cleaning data sheets from Revision 4 of Procedure GMP-0062 and not the current Revision 5. A review of the revision records of GMP-0062 found that the most significant difference was that the current revision had cautions on Cobalt 60 contamination not found in the previous revision. The licensee documented the inspection findings in Condition Report (CR) 90-1199 for establishment of corrective actions. The failure of the document users to ensure use of current revisions, as required by paragraph 4.6 of Procedure RBNP-008, Revision 4, was identified as an apparent violation (458/9033-01).

The inspectors also reviewed the ongoing root cause investigation for CR 90-1154. This CR documented an engineered safety feature (ESF) actuation on November 19, 1990, which was caused by de-energization of a 120 VAC vital distribution panel as a result of the opening of a wrong power supply breaker (1SCM\*XRC14B1). The "redline" control room copy of Drawing EE-9PZ-7 was noted by the inspectors to indicate that breaker 1RPS\*XRC10B1 had been interchanged with 1SCM\*XRC14B1 by a Prompt Modification Request (PMR) 89-0026 in October 1989. The inspectors also found that the controlled copy of the drawing in the electrical maintenance satellite file was stamped with a red stamp which stated, "See redline control room copy for implemented unincorporated changes." The root cause of the ESF actuation would thus appear to be the failure of the operator to review the control room copy of the drawing prior to opening of the breaker.

The inspectors also verified that the required quarterly reviews were being performed for this satellite and that the results indicated the satellite was being properly maintained. A review of control room drawings by the inspectors found that P&IDs had "redline" information incorporated into drawing revisions

in a reasonable timeframe. Other drawings, such as electrical one lines, were found to be not revised in a very timely manner. A Corrective Action Report had been issued by QA on May 25, 1990, because of repetitive problems in drawing controls. Part of the corrective action recommendations was to incorporate all outstanding drawing changes by the end of 1991. It appears that completion of this planned corrective action would minimize the opportunity for the type of personnel error noted in this specific ESF actuation.

### 3. RECORDS PROGRAM (39701)

#### 3.1 Objective

The objective of this inspection was to ascertain whether the licensee is implementing a records program in conformance with regulatory requirements, USAR commitments, and industry guides and standards.

#### 3.2 Program

The inspectors reviewed the procedures on records control (see Attachment) and verified that appropriate provisions were made for identification, review, indexing, retention, and maintenance of records in environmentally controlled facilities.

#### 3.3 Implementation

The inspectors reviewed a sample of 12 records (see Attachment) and verified their proper retention, indexing, and maintenance. In review of one ST report, the inspectors found that three appendices were missing from the microfilm copy of the report. The licensee identified the inspection finding in CR 90-1200 and recovered the missing five pages of information. The failure to maintain the ST records is an apparent violation of Criterion XVII of 10 CFR Part 50, Appendix B; however, a Notice of Violation is not being issued because the criteria of Section V.A. of the NRC's Enforcement Policy have been met.

The inspectors toured the permanent plant file's record storage facility and found that the licensee has been experiencing problems in maintenance of environmental controls. Prior to the inspection, the licensee had documented this problem in CR 90-1190. The planned corrective action is to replace the facility heating and air conditioning systems.

### 4. FOLLOWUP ON RECENT DIVISION II STANDBY DIESEL GENERATOR PROBLEMS (92701)

During performance of a 1-hour operability run of the Division II standby diesel generator on November 28, 1990, a crack was observed by an engineer in the circumferential fillet weld which connected the intercooler adapter inlet pipe to the adapter and plate. A minute combustion air leak was noted by the engineer to be occurring at the crack, which visually appeared to be approximately 1 1/2 inches in length. The engineer documented the condition on CR 90-1194 and initiated Prompt MWO 056700 for accomplishing repairs.

The inspectors visually examined the repaired weld and reviewed CR 90-1194 and Prompt MWO 056700. It was noted from this review that appropriate repair



instructions had been provided, an applicable welding procedure specification selected for accomplishing the repair, and nondestructive examination utilized for verification of both crack removal and the integrity of the repaired weld. The inspectors also visually examined the same weld in the Division I standby diesel generator, with no cracks noted. It was additionally ascertained from review of CR 90-1194 that cracking was originally observed in the Division II standby diesel generator circumferential fillet weld prior to Refueling Outage (RF)-2, after approximately 500 hours of engine operation. This original cracking was attributed to the presence of an overlap defect in the factory weld which acted as a stress riser. After repair by the licensee, the engine was operated for approximately an additional 150 hours, with no evidence of cracking noted in the reworked weld.

In September 1990, a crack was discovered in the intercooler adapter weld which connected the adapter end plate to the adapter air box. This was found to be related to a fitup gap between the air box and the end plate, which resulted in the weld having a small effective throat. This deficiency was repaired by weld buildup of the edge of the adapter end plate to level with the outside surface of the air box, followed by fillet weld attachment of a reinforcing plate which spanned the gap between the end plate and air box.

The licensee's disposition for CR 90-1194 included a determination to procure a replacement intercooler adapter and, in the interim period, require performance of nondestructive examination of the circumferential fillet weld after each monthly surveillance test. The licensee's preliminary root cause assessment has attributed the cause of the initial circumferential fillet weld cracking to be the poor quality of the factory weld, which resulted in crack initiation in the area of the welded connection with least flexibility and least resistance to vibratory and thermal stresses. The subsequent weld buildup on the edge of the adapter and plate, which passed within approximately 1/4 inch of the repaired area of the circumferential weld, and attachment of the reinforcing plate are believed to have created residual stresses in the repaired area. The residual stresses, combined with the lack of flexibility and service vibratory and thermal stresses, are considered to be the causal factors for propagation of the second crack. Removal of the cracked area of the circumferential fillet weld and rewelding would relieve the residual stresses created by attachment of the adjacent reinforcing plate and reduce the possibility for further crack initiation. The licensee plans to perform additional analysis of root cause and to study whether the overall configuration of the turbocharger, combustion air piping, and intercooler can be made more fail-safe by addition of supports or other modifications. Review of the licensee's final root cause analysis and actions to prevent recurrence are considered an inspector followup item. (458/9033-02)

On November 24, 1990, a jacket cooling water leak was identified in the Division II standby diesel generator. Prompt MWO 056702 was generated to investigate and, if necessary, repair the source of the leak. The investigation identified the source to be associated with two overlap defects (1/4 inch and 1/2 inch in length) in the fillet weld connecting the inner jacket wall to the jacket flange. Licensee personnel ground out the defective weld areas and performed weld repairs. A pneumatic test was subsequently

performed to verify the jacket integrity. The inspectors reviewed the Prompt MWO 056702 work package and noted that appropriate instructions were provided for identification and repair of the leak. CR 90-1196 was additionally generated to request engineering evaluation of root cause and actions to prevent recurrence. Review of the closeout of CR 90-1196 is considered an additional part of the inspector followup item (458/9033-02) discussed above.

#### 5. EXIT INTERVIEW

An exit interview was held on November 30, 1990, with those individuals denoted in paragraph 1 of this report. At this meeting, the scope of the inspection and the findings were summarized. No information was presented to the inspectors that was identified by the licensee as proprietary.

ATTACHMENT  
LIST OF DOCUMENTS REVIEWED

PROCEDURES

RBNP-008, "Document Control and Records Management," Revision 4  
RBNP-010, "Design and Modification Control," Revision 4  
QAD-2, "Quality Assurance Program," Revision 6  
QAD-6, "Document Control," Revision 8  
QAD-17, "Quality Assurance Records," Revision 6  
ADM-0003, "Development, Control and Use of Procedures," Revision 17B  
ADM-0005, "Station Document Control," Revision 8  
ADM-0006, "Control of Plant Records," Revision 6  
ADM-0015, "Station Surveillance Test Program," Revision 13B  
ENG-3-006, "River Bend Station Design and Modification Request Control Plan,"  
Revision 7 with Interim Procedure Change 1  
EDP-AA-21, "Control Room Document Redline and Review Process," Revision 4  
EDP-AA-59, "Tracking, Distributing and Incorporating Design Change Documents,"  
Revision 8 with Interim Procedure Change 1  
SSP-1-003, "Records Management/Permanent Plant File," Revision 5 with Interim  
Procedure Changes 1 and 2  
SSP-1-004, "Station Document Control system," Revision 6 with Interim  
Procedure Change 1  
SSP-1-013, "Maintenance and Distribution of the Subject File Index and the  
Records Type List," Revision 3

DOCUMENT CONTROL SAMPLE

MWOs

R125319 P5333248 E542157  
R125376  
R125379  
R135533

R137412

R138331

STs

STP-000-0004

STP-251-3205

RECORDS SAMPLE

STP-200-0603 (ST Report 6/4/89)

STP-000-3602 (ST Report 2/8/90)

TCN 89-0751 (Procedure Change)

MR 89-0019 (Modification Package)

PMR 89-0026

1E51\*MOVFO78 (Receiving Inspection Report)

1RMS\*RE11B (Receiving Inspection Report)

CR 90-0094 (Nonconformance Report)

CR 90-0106 (Nonconformance Report)

RBG-31655 (Part 21 report)

MWO-133744 (Work Package)

MWO-104235 (Work Package)