

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report No. 50-458/92-23

Operating License No. NPF-47

Licensee: Gulf States Utilities Company
P.O. Box 220
St. Francisville, Louisiana 70775

Facility Name: River Bend Station

Inspection At: River Bend Station, St. Francisville, Louisiana

Inspection Conducted: June 8-12, 1992

Inspector: T. O. McKernon, Reactor Inspector, Operational Programs Section
Division of Reactor Safety

Approved:

Dwight L. Chanferlain for
T. F. Stetka, Chief, Operational Programs
Section, Division of Reactor Safety

6-25-92

Date

Inspection Summary

Inspection Conducted June 8-12, 1992 (Report 50-458/92-23)

Areas Inspected: Routine announced inspection of the River Bend Station maintenance program implementation. The inspection also reviewed the status of corrective actions related to previously identified weaknesses in the training program.

Results: The inspector observed a marked improvement in the facility's maintenance program implementation. In particular, the detailed and structured approach to pre-job planning for planned maintenance activities appeared to be a strength. Other areas of improvement such as radiation protection training and the control of measuring and test equipment appeared to have contributed to recent successes in the maintenance area.

Summary of inspection findings:

- (Closed) Inspection Followup Item (458/9120-01): Few simulator training and evaluation scenarios had position-specific objectives traceable to the licensed-operator task lists.

- (Closed) Inspection Followup Item (458/9120-02): OJT cards did not exist for all equipment not duplicated in the laboratory.

DETAILS

1. PERSONS CONTACTED

GSU

D. Andrews, Director Quality Assurance
R. Barnes, Supervisor, Codes and Standards
J. Booker, Manager Nuclear Industry Relations
T. Burnett, Senior Chemical Specialist
E. Cargill, Director Radiological Programs
J. Cook, Technical Assistant/Licensing
T. Crouse, Manager Administration
M. Crowell, Nuclear Training Coordinator
R. Easlick, Radwaste Supervisor
C. Fantacci, Radiological Engineering Supervisor
R. Finkenaur, Senior Electrical Engineer
T. Fredieu, Supervisor, Maintenance Services
K. Garner, Licensing Engineer
J. Hamilton, Director Design Engineering
K. Hodges, Chemistry Supervisor
J. Knight, Student Engineer
D. Lorfing, Supervisor-Nuclear Licensing
G. Mahan, Senior Welding Engineer
J. McQuirter, Licensing Engineer
J. Mead, Supervisor, Electrical and Special Projects
W. Odell, Manager, Oversight
S. Radebaugh, Assistant Plant Manager Maintenance
R. Roberts, Electrical Maintenance Supervisor
W. Roman, Integrated Leak Rate Test Director
K. Sunrke, General Manager Engineering and Administration
C. Walling, Mechanical Process System Supervisor
L. Woods, Shift Supervisor

NRC Personnel

R. Baer, Senior Reactor Health Physicist
D. Loveless, Resident Inspector
T. McKernon, Reactor Inspector
W. McNeill, Reactor Inspector
C. Paulk, Reactor Inspector
K. Weaver, Resident Inspector, Co-op

All of the above attended the exit meeting held on June 12, 1992. The inspector also interviewed other employees during the inspection.

2. FOLLOWUP TO CORRECTIVE ACTIONS TO PREVIOUS INSPECTION FINDINGS (92701)

The following items were reviewed to ascertain whether effective corrective actions by the licensee had been taken to warrant closure.

2.1 (Closed) Inspection Followup Item (458/9120-01): Few simulator training and evaluation scenarios had position-specific objectives traceable to the licensed-operator task lists.

This item concerned the licensee's licensed operators simulator training scenarios and the traceability of position-specific objectives to the licensed operator task list. During the review of the licensee's corrective actions, the inspector noted that all simulator scenarios had been revised to include position-specific objectives traceable to the task list. Further, it was observed that an additional 20 new scenarios utilizing an industry accepted standard had been developed. This item is considered closed

2.2 (Closed) Inspection Followup Item (458/9120-02): On-the-job (OJT) cards did not exist for all equipment not duplicated in the laboratory.

This item involved the omission of OJT cards for evaluation of training on nuclear instruments (i.e., seismic, acoustic, and loose parts monitor) not duplicated in the laboratory. During the inspection, the inspector verified through discussions with key training department managers and review of training procedures that the licensee had developed OJT training standards and certifications for the applicable instrumentation. This item is considered closed.

3. Maintenance Program Implementation (62700)

This portion of the inspection involved the review of the maintenance program to determine whether or not it is being implemented in accordance with regulatory requirements, to ascertain the effectiveness of the maintenance program on important plant equipment, and to determine the ability of the maintenance staff to conduct an effective maintenance-program.

In order to accomplish the above objectives, the inspector reviewed the following maintenance work orders (MWOs):

- o MWO 056970, "Generator Hydrogen Coolers"
- o MWO R140736, "1RMS-CAB152," Radiation Monitor
- o MWO R145008, "1STX-XNS1C," Service Transformer
- o MWO 59034, "Instr. Air Receiver Tnk Relief Valve"
- o MWO 59044, "MHF-CRN2," Cask Pool Crane
- o MWO 59054, "IFTS-Proximity Amplifier Switch"

The above were evaluated to determine that they contained the necessary information, that the corrective actions had been implemented, and that a quality record existed. Further, procedures specified in the MWOs were

reviewed to ensure that the procedures contained the proper scope for the maintenance to be performed, the appropriate quality control hold points were specified, the measuring and test equipment (M&TE) was identified, and the correct post-maintenance tests were specified. The procedures provided sufficient detail for the activity described. Considerations were given to radiological, temperature, pressure, and electrical hazards as appropriate, as well as provisions for fire protection, cleanliness, and housekeeping. Provisions were also provided for equipment control such as jumpers and lifted leads. The prerequisite approvals from operations were included as well as instructions to notify operations when the equipment was ready to be returned to service. It was further noted that, in those instances where the MWOs referenced a vendor technical manual for the equipment under repair, the manual was kept under control and maintained current. In addition, for a limited sampling the inspector verified that the machinery history records for the selected equipment were kept up to date and easily retrievable. From the MWO review, the inspector concluded that the licensee had done a good job in preparing work packages.

In addition to the above, the work packages were reviewed for completeness to ensure that the required administrative approvals were obtained before work was initiated. The packages contained worker authorization forms reviewed and signed by the appropriate foreman verifying that the workers performing the work had received the prerequisite training and were certified to perform the task or were under the supervision of a qualified person. The work packages also specified the correct parts and materials and special processes (e.g., welding) were controlled and documented.

Of particular note during the inspection was the improved quality, organization, and structure observed relative to maintenance planning activities and the work packages developed. Previous maintenance inspections (i.e., the Maintenance Team Inspection (MTI) NRC Inspection Report 50-458/89-04, and the MTI followup, NRC Inspection Report 50-458/91-06) had noted that the licensee had an inordinate number of inadvertent engineered safety features (ESF) actuations which were attributable to human errors (e.g., work practices, procedure inadequacy, or procedure noncompliance). It was believed that the majority of these events could be eliminated through better coordination between onsite organizations such as engineering, operations, radiation protection, and the maintenance department. The licensee had acknowledged the problems and had undertaken maintenance enhancements in order to improve the maintenance program. The licensee had developed a formalized and controlled maintenance planners guide which identified the technical and administrative requirements necessary to complete a viable job plan and identify other onsite interfaces. Procedure MPG-002-005, Revision 2, "Maintenance Policy Guidelines," provided the maintenance planners with the information necessary to generate MWO job plans and included checklists for work package preparation and suggested order of assemblage. The efforts in pre-job planning were quite evident in that the work packages were well organized with brightly colored dividers used to separate documentation such as M&TE records from procedures. The packages

also included photographs of the component to be worked so that the craft would not erroneously work on a similar component on a different division and also to identify any interferences. The packages were well organized and provided a structured approach to planned maintenance activities. The inspector observed that the number of inadvertent ESF actuators as a result of human error between 1991-present had significantly declined in comparison to prior periods.

Also during the inspection, the inspector reviewed the calibration records for three randomly selected M&TE: Torque Wrenches TQW-095A, TQW-159A, and TQW-183A. The standards laboratory had recently implemented a new M&TE control system. The system utilized bar codes on the M&TE for tracking and control. For signout and return authorization the system used bar codes placed upon the maintenance craft identification badges. A review of the data base information for the torque wrenches showed a history of the work activities the wrenches were used on, the calibration dates, the individuals responsible for the tool during each work period, the out-of-tolerance reports and notices, and whether or not the tool was retired from use. The review verified that the M&TE was properly stored, that the calibration history was maintained current, and that the identity of the individuals calibrating the M&TE was maintained.

The review of the licensee's maintenance program implementation indicated that significant improvements had been made. In particular, improvements in pre-job planning for planned maintenance activities and in the control of M&TE appeared to have contributed to the decline of inadvertent ESF actuators. As such, the licensee's pre-job maintenance planning program and the M&TE program were considered strengths.

4. EXIT INTERVIEW

The inspector met with the Gulf States Utilities personnel identified in paragraph 1 on June 12, 1992. The inspector summarized the inspection scope and presented the inspection findings and conclusions. The licensee did not identify as proprietary any of the materials provided-to or reviewed by the inspector during the inspection.