

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report Nos.: 50-498/93-51  
50-499/93-51

Licenses: NPF-76  
NPF-80

Licensee: Houston Lighting & Power Company  
P.O. Box 289  
Wadsworth, Texas 77483

Facility Name: South Texas Project Electric Generating Station (STP),  
Units 1 and 2

Inspection At: Region IV office, Arlington, Texas

Inspection Conducted: October 12, 1993, to March 18, 1994

Inspectors: M. A. Satorius, Project Engineer, Project Branch A, Division of  
Reactor Projects

W. C. Sifre, Reactor Engineer, Technical Support Staff, Division  
of Reactor Projects

Approved:

W.D. Johnson  
W. D. Johnson, Chief, Project Branch A

3/30/94  
Date

Inspection Summary

Areas Inspected: Routine in-office inspection of the Management and  
Organization issues contained in the Diagnostic Evaluation Team (DET) Report.

Results:

- The Management and Organization section of the DET report was reviewed. Based on this review, issues that the NRC considers necessary to be addressed which do not pertain to the restart of either unit were identified.
- Items identified in the review of the DET report related to nonrestart issues were assigned as Inspection Followup Items (IFI) in order to facilitate tracking and eventual closure. Several of these items were closed in this report.

Summary of Inspection Findings:

- The following IFI was opened:

498;499/9351-16.

- The following IFIs were opened, but were subsequently closed by referencing other NRC inspection reports:

498;499/9351-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12, -13, -14, -15, and -17.

Attachment:

- Persons Contacted and Exit Meeting

## DETAILS

### **1 BACKGROUND**

Both units at STP were shut down in early February 1993 and remained shutdown as a result of numerous broad scope problems identified by the NRC and the licensee. Unit 1 started up in February 1994 after satisfying the conditions of the Confirmatory Action Letter.

The NRC Office for Analysis and Evaluation of Operational Data conducted a Diagnostic Evaluation of STP during the period March 29 to April 30, 1993. The findings of this evaluation were forwarded to the licensee on June 10, 1993. Numerous items were documented in the DET report, including a number of issues that NRC considered of sufficient scope and safety significance to require resolution prior to either unit being restarted.

In an effort to identify the Management and Organization issues that NRC did not consider necessary to address prior to restart, a review was conducted of the DET report. As a result of this review, the issues in the following sections were identified.

### **2 DIAGNOSTIC EVALUATION TEAM NONRESTART ITEMS RELATED TO MANAGEMENT AND ORGANIZATION**

This section was structured to address the issues in Section 2.4, "Management and Organization," of the DET Report. The introductory section was not addressed because the issues addressed in the introduction were also determined to be identified in the detailed portion of the corresponding section of the report. In addition, the positive observations and Restart Issues were not addressed because these issues were determined to be not applicable or addressed in other NRC inspections.

#### 2.1 IFIs Identified in Paragraph 2.4 of the DET Inspection Report

2.1.1 (Closed) IFI 498;499/9351-01: Senior management failed to provide the staff clear direction and oversight in several key areas, including performance standards and station priorities. As a result, the licensee's staff questioned the credibility of senior management. Frequent, conflicting messages about the implementation of these standards and priorities were sent by senior management. Numerous uncontrolled memoranda and oral instructions were used to change standards and priorities.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Report 50-498/94-06; 50-499/94-06.

2.1.2 (Closed) IFI 498;499/9351-02: Management did not establish good communications and teamwork. Management's expectations regarding competing priorities between budget, schedule, and safety performance were not

communicated well. Vertical communications were particularly weak. Horizontal communications and interface problems added to the difficulty of completing work using established processes. There was a weak coordination and accountability between the disciplines during routine work.

This item is closed based on favorable observations during several restart inspections and the action plans incorporated into the licensee's Business Plan.

2.1.3 (Closed) IFI 498;499/9351-03: Managers did not respond effectively to the findings, concerns, and recommendations of their principal self-assessment and quality oversight functions, especially those of the Nuclear Safety Review Board and Quality Assurance.

This item was closed based on the issue being addressed and closed in IFI 498;499/9331-82.

## 2.2 IFIs Identified in Paragraph 2.4.1 of the DET Inspection Report

2.2.1 (Closed) IFI 498;499/9351-04: The lack of clear and consistent station management direction with little face-to-face communications, direction, and feedback combined with ineffective interfacing with people in the plant resulted in senior management being insulated from station personnel. The senior management's over-involvement in lower level issues such as housekeeping and other minor items, contributed to a high senior management workload, limited their time available to focus and provide direction on higher level issues, and discouraged ownership and accountability at the lower levels of management. As a result, many of the plant's more important activities and initiatives, such as root cause analyses, didn't receive consistent and clear management direction and didn't have an owner that really felt accountable. Key performance issues were often not fully appreciated by senior management even after they were identified by outside industry and regulatory agencies, despite precursors and warnings within the organization at STP. The discontinuity between the strategic goals and the daily activities had undercut the credibility of senior management's plans and the Master Operating Plan.

This item is closed based on management changes made in 1993, favorable observations during restart inspections, and the associated Business Plan action plans.

## 2.3 IFIs Identified in Paragraph 2.4.2 of the DET Inspection Report

2.3.1 (Closed) IFI 498;499/9351-05: The planning, scheduling and work process controls did not support the timely and reliable completion of work by maintenance, operations, and engineering. Although station management had recognized this problem, they had failed, until recently, to focus the necessary resources to correct this situation.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-53; 50-499/93-53 and 50-498/94-08; 50-499/94-08.

2.3.2 (Closed) IFI 498;499/9351-06: Management system problems had contributed to job performance errors, low productivity, deferral of maintenance, and poor prioritization of necessary station work.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-53; 50-499/93-53 and 50-498/94-08; 50-499/94-08.

2.3.3 (Closed) IFI 498;499/9351-07: STP routinely experienced a significant end-of-year deficit in the accomplishment of planned, priority work because of the failure to adequately anticipate and budget for emergent work. The increasing backlogs of deferred work in maintenance, engineering and operations were clear indicators of this management approach.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-45; 50-499/93-45, 50-498/93-53; 50-499/93-53, 50-498/93-55; 50-499/93-55, and 50-498/94-08; 50-499/94-08.

2.3.4 (Closed) IFI 498;499/9351-08: One example that illustrates the senior management response to high priority budget requests was the previous maintenance and training managers' request for maintenance training. Both managers had established the need and requested the funds to provide additional maintenance craft training in response to recognized deficiencies. The request was not adequately funded despite a clearly written budget justification highlighting the significant consequences of not funding this program. Subsequently, the licensee's maintenance staff knowledge was found to be below industry standards and the licensee was forced to initiate an accelerated remedial training program.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-38; 50-499/93-38 and 50-498/94-04; 50-499/94-04.

2.3.5 (Closed) IFI 498;499/9351-09: Failure to provide additional nonlicensed operators had prevented upward progression of nonlicensed operators into the ranks of licensed operators and precluded utilization of licensed operator experience in other functional areas at STP.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-40; 50-499/93-40 and 50-498/93-41; 50-499/93-41, in addition to the licensee improving maintenance training to within industry standards and being removed from a third-party maintenance training probationary program.

2.3.6 (Closed) IFI 498;499/9351-10: The impact of insufficient funding was the budget exclusion noted in the proposal submitted by engineering,



highlighting the fact that engineering backlogs of modifications and corrective actions would not be reduced in 1993 due to lack of funding. In fact, engineering backlogs had continued to increase in 1993.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-45; 50-499/93-45 and 50-498/93-55; 50-499/93-55.

2.3.7 (Closed) IFI 498;499/9351-11: There were several incidents where operations personnel exceeded Technical Specification guidelines on overtime.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-40; 50-499/93-40, 50-498/93-41; 50-499/93-41, 50-498/93-45; 50-499/93-45, and 50-498/94-06; 50-499/94-06.

2.3.8 (Closed) IFI 498;499/9351-12: Minimal operations staffing was exemplified by some operating crews' inability to compensate for unplanned absences despite the fact that the licensee had recently gone from five operating crews to four and operator training was deferred.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-40; 50-499/93-40, 50-498/93-41; 50-499/93-41, 50-498/93-45; 50-499/93-45, and 50-498/94-06; 50-499/94-06.

2.3.9 (Closed) IFI 498;499/9351-13: The scope and duration of operations training was frequently altered to support manpower shortages in the plant.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-40; 50-499/93-40 and 50-498/93-41; 50-499/93-41.

#### 2.4 IFIs Identified in Paragraph 2.4.3 of the DET Inspection Report

The issues identified in this paragraph of the DET Inspection Report concerned the weak communication skills that senior licensee managers exhibited with their staff. These issues were identified and tracked in IFIs 498;499/9351-01.

#### 2.5 IFIs Identified in Paragraph 2.4.4 of the DET Inspection Report

2.5.1 (Closed) IFI 498;499/9351-14: The licensee's quality assurance (QA) department had repeatedly notified management of a weakness in the definition of "conditions adverse to quality," which resulted in licensee personnel not being aware of when to write an SPR. This QA finding remained open at the conclusion of the team's onsite period because management had not effectively addressed this concern.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Report 50-498/93-54; 50-499/93-54.

2.5.2 (Closed) IFI 498;499/9351-15: Lack of effectiveness in reporting problems reflected workers' willingness to live with problems, due at least in part to conflicting management expectations and standards regarding material condition.

This item was closed based on the action taken by the licensee and documented in NRC Inspection Reports 50-498/93-53; 50-499/93-53, 50-498/93-54; 50-499/93-54, and 50-498/94-08; 50-499/94-08.

2.5.3 (Open) IFI 498;499/9351-16: Several individuals outside of the CAG who performed root cause analyses had not been adequately trained. In the case of engineering, individuals performing root cause analyses often were not knowledgeable on the system or component of concern.

## 2.6 IFIs Identified in Paragraph 2.4.5 of the D&T Inspection Report

2.6.1 (Closed) IFI 498;499/9351-17: Less than 50 percent of the OER documents that required review for applicability to STP systems had received any review by ISEG. Approximately 300 OERs were open in April 1993. Many reviews had been incomplete or did not address the industry identified problems or recommendations.

This item was closed due to the issue being addressed and tracked in IFI 498;499/9331-25.

## ATTACHMENT 1

### 1 PERSONS CONTACTED

#### 1.1 Licensee Personnel

J. Sheppard, General Manager, Nuclear Licensing  
M. Coughlin, Senior Licensing Engineer  
other members of the licensee's staff

#### 1.2 NRC Personnel

W. Johnson, Chief, Project Branch A, Division of Reactor Projects  
M. Satorius, Project Engineer, Project Branch A, Division of Reactor Projects

### 2 EXIT MEETING

A telephonic exit meeting was conducted on February 22, 1994. During this meeting, the inspectors reviewed the scope and findings of this report. The licensee did not take exception to any of the inspection findings nor identify as proprietary any information provided to, or reviewed by, the inspectors.