

February 18, 1994

Docket Nos. 50-498
and 50-499

MEMORANDUM FOR:	T. Murley	J. Zwolinski	F. Congel
	F. Miraglia	E. Adensam	E. Butcher
	W. Russell	B. Grimes	W. Bateman, EDO
	ADPR/NRR	D/DE	J. Caldwell
	D. Crutchfield	B. D. Liaw	Operations Center
	W. Travers	A. Thadani	R. Cooper, RGI
	F. Gillespie	M. Virgilio	E. Merschoff, RGII
	S. Varga	C. Rossi	E. Greenman, RGIII
	J. Calvo	R. Zimmerman	A. Bill Beach, RGIV
	G. Lainas	B. Boger	K. Perkins, RGV
	J. Roe	C. Thomas	

THRU: Suzanne C. Black, Director
Project Directorate IV-2
Division of Reactor Projects III/IV/V

FROM: Lawrence E. Kokajko, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV/V

SUBJECT: DAILY HIGHLIGHT

South Texas Project, Units 1 and 2

South Texas Project Unit 1 entered Mode 2 on February 18, 1994, at 12:27 a.m. The licensee has put a voluntary restraint on Mode 1 entry pending establishment of an operable main feedwater pump. The licensee expects to enter Mode 1 today.

Also, on February 17, the PRA-based Technical Specification amendment was issued. This amendment increases several allowed outage times and surveillance test intervals. The licensee was given 45 days to implement the change.

Original Signed By
Donna M. Skay

for Lawrence E. Kokajko, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV/V

cc: All NRR PDs
A. Chaffee, OEAB
G. Zech, RPEB
D. Norkin, RSIB

DISTRIBUTION
PDIV-2 R/F
EPeyton
LKokajko

OFFICE	PDIV-2/LA	PDIV-2/PE	PDIV-2/PM	PDIV-2/D	
NAME	EPeyton	DSkay:ye	LKokajko	SBlack	
DATE	2/18/94	2/17/94	2/17/94	2/18/94	/ /
COPY	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO

OFFICIAL RECORD COPY
FILENAME: B:\ST2-18.DHL

PM
PD
AD
DD

DIRECTOR HIGHLIGHTS
PROJECT DIRECTORATE IV-2
February 22, 1994

South Texas Project, Units 1 and 2

The licensee placed South Texas Project, Unit 1 in mode 2 (startup) at 2252 hours on February 17, 1994. The reactor went critical at 0027 hours on February 18, 1994. The licensee entered mode 1 (power operation) at 0039 hours on February 22, 1994 and is currently at 6.5 percent power. The licensee will complete work, and will subsequently test, one main feedwater pump (governor problems) prior to exceeding 12 percent power. The next major evolution is the main turbine roll and testing. Previously, a condenser tube leak was identified while at 3 percent power on February 18. The associated water box was removed from service and the tube leak repaired.

Planned outage work on train "A" systems, including standby diesel generator 21, is continuing on South Texas Project, Unit 2. Preparation for the train "B" outage is underway. The licensee has completed 51 of the required 61 system certifications and has made some progress in reducing the backlog of service requests on Unit 2.

Finally, the PRA-based amendments to the South Texas Project Technical Specifications were issued on February 18, 1994.

Contact: L. Kokajko
504-1309

PH WDR
PD WDR for SCO
AD for LCH
DD [Signature]

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

March 9, 1994

South Texas Project

South Texas Project, Unit 1 entered Mode 5 on March 3, 1994 for the licensee to investigate and repair a primary to secondary leak in the "C" steam generator. The leak was determined to be from a steam generator tube that had been plugged during preservice inspections with a Westinghouse Inconel 600 plug. In 1991 a Westinghouse Inconel 690 plug was installed behind the original plug. This unusual rework may have contributed to the recent leak. A new Babcock and Wilcox steam generator tube plug is being installed and the unit will be restarted following completion of the repairs.

South Texas Project, Unit 2 remains shutdown while the licensee completes activities to support a restart in April 1994. The reliability of the emergency diesel generators (EDGs) has continued to be an issue. EDG 22 was recently found to have a broken piston. The licensee is investigating the cause but believes the problem to be an isolated occurrence. EDG 21 experienced spurious starts that the licensee has been unable to explain. The problem does appear to be limited to the test and non-safety circuits involving optical fiber components. In addition to these problems with the Unit 2 EDGs, Unit 1 EDG 11 recently experienced failures related to the generator field flashing circuits. The licensee has identified the cause as a broken spring in a relay which prevented the relay from resetting and thereby caused a failure of the field flashing circuit. The relay was replaced and EDG 11 is operable. A Management Meeting has been scheduled for March 23, 1994 in the Region IV offices to discuss EDG issues with the licensee.

Contact:
Donna Skay
504-1322

PM WDR for DMS
PD 323
AD [Signature]
DO 21

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

March 15, 1994

South Texas Project

South Texas Project, Unit 1 remains in Mode 5. Restart had been delayed following completion of steam generator tube repairs by an event which occurred on March 10. During a surveillance test on the solid state protection system, an inadvertent SI signal resulted in a loss of shutdown cooling for approximately 4 minutes with a negligible increase in reactor coolant temperature. Followup tests have been completed without finding any hardware problems within the protection cabinets. The licensee expects to enter mode 4 on March 17. The NRC had requested that HL&P discuss the root cause and corrective actions with the staff before entering mode 2. Management meetings are being held in the Region IV offices on March 16 to discuss the loss of shutdown cooling event and recent diesel generator problems. In addition to the licensee and NRC staff, the meetings are being attended by representatives of Greenpeace.

Contact:
Donna Skay
504-1322

PM CE
PD SP
AD E
DD X

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

March 23, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: The plant entered mode 2 (startup) on March 20, 1994, at 2306 hours, and the reactor went critical on March 21, 1994, at 0009 hours. The plant entered mode 1 (power operation) at 1917 hours on March 21, 1994, and operators synchronized the main generator to the grid at 1731 hours on March 22, 1994. The plant is currently at 27% power and holding to perform the secondary calorimetric. The plant may reach the 50% plateau as early as Wednesday night, March 23. The plant will hold at 50% power for management and systems assessments.

Unit 2 Status: The plant is still defueled. The reactor coolant system has been flooded in preparation for fuel load, which may occur later this week. Maintenance outage activities are in progress on the "B" train systems.

On March 16, a management meeting was held with Houston Lighting & Power Company (HL&P) in the Region IV office. The licensee requested this meeting to discuss recent problems with diesel generators 11, 21 and 22, and to discuss the loss of shutdown cooling event on March 10. The licensee presented its root cause analysis and corrective action for the diesel problems. Discussion focused primarily on diesel generator 22 in which the licensee discovered a cracked piston during a routine surveillance. The failure was unique and isolated to the 22 diesel. The cause has not been determined. The regional staff will monitor repairs and post-maintenance testing. HL&P also presented its analysis of the March 10 event in Unit 1 in which operators working in the wrong electrical cabinet during a surveillance test initiated a safety injection signal. RHR was isolated for 4 minutes resulting in an increase in reactor coolant temperature of less than 1 degree F. The licensee stated that the safety significance of the event was low but that it is treating this as a serious event. The staff agreed that corrective actions were adequate and that the licensee is prepared to restart Unit 1. The meeting was attended by local representatives of Greenpeace.

The City of Austin, Texas, a co-licensee of the South Texas Project, has entered into a lawsuit with Houston Lighting & Power Company, a co-licensee and operator of the South Texas Project. The lawsuit seeks recovery of operations and maintenance costs and fuel costs associated with the year-long forced outage at the facility.

Contact: L. Kokajko
504-1309

PM LEB
PD LET L. Ser
AD [Signature]
DD [Signature]

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

March 30, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: Licensee management lifted its internal hold for plant assessment at 50% power on March 28, 1994. The plant is currently at 78% power, and holding for power flux mapping. The licensee investigated and corrected minor oscillations in steam generator "C" level, which was caused by an faulty input into the feedwater regulating valve. Limited "A" train system maintenance is being performed, and associated entries into action statements have been made.

Continuous observation of Unit 1 power ascension activities was previously established. This coverage will continue at least to April 8, 1994. A public meeting is scheduled at the facility on April 8, 1994, to review the licensee's startup of Unit 1, and the status of Unit 2.

Unit 2 Status: Plant operators entered mode 6 (refueling), and began fuel movement at 0600 hours on March 29, 1994, which should be completed within 72 hours. Maintenance outage activities are continuing on the "B" train systems.

On March 18, 1994, the licensee submitted its Operational Readiness Plan for Unit 2, which the licensee considers a "refinement" of the process used for Unit 1. The plan takes into account that a number of programmatic issues were addressed on a site-wide basis prior to the restart of Unit 1, and does not require further or separate action to support restart of Unit 2 (e.g. post maintenance testing, engineering backlog reduction). Other areas will require additional work (e.g. corrective action program) or a unique response for Unit 2 (e.g. operator staffing). All confirmatory action letter issues are addressed in the plan for Unit 2. The current schedule indicates generator output breaker closure on or about May 22, 1994, and full power operation on or about June 5, 1994.

Finally, staffers from Representative (D-MI) Dingell's energy subcommittee have requested a briefing to discuss South Texas Project allegation history from 1986, the recent safety injection signal and associated human performance problems, emergency diesel generator issues, and the recent extend outage and subsequent restart of Unit 1. It is anticipated that other issues may be discussed (e.g. discrimination complaints and associated Department of Labor reviews, and enforcement actions). Region IV and NRR will support this briefing, which is schedule for Thursday, March 31, 1994.

Contact: L. Kokajko
504-1309

PM
PD
AD
DD

[Handwritten signature]
[Handwritten initials]

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

April 6, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: Plant operators achieved 90% power on Friday, April 1, 1994, and were holding Unit 1 at this power level for an internal management and systems assessment, which was scheduled to last until April 7, 1994. However, due to a main feedwater pump turbine governor valve electro-hydraulic control leak, the plant power level was reduced to 77% to repair the leak. The plant was returned to 90% on April 5, 1994.

Unit 2 Status: Plant operators completed reloading the core on Sunday, April 3, 1994, and are currently keeping Unit 2 in mode 6 (refueling). Entry into mode 5 (cold shutdown) is estimated for April 9, 1994. Maintenance outage activities are continuing on the "B" train systems.

A public meeting is scheduled at the facility on April 8, 1994, to review the licensee's startup of Unit 1, and the status of Unit 2. NRR will be represented at this meeting.

On March 30, 1994, various Region IV and Headquarters staff members met with congressional staff members from the House Energy subcommittee at the request of Representative Dingell (D-MI). The discussion involved the construction and operational phases of the South Texas Project; including, but not limited to, allegation status, complaints before the Department of Labor, organizational climate, the 1993 Diagnostic Evaluation Team report, operational readiness and restart issues, and recent operational performance. The NRC staff was represented by: Region IV's J. Callan, L. Williamson, A. Howell, and R. Wise; OCA's D. Rathbun and T. Madden; OI's D. Murphy; and NRR's P. Milano and L. Kokajko.

Contact: L. Kokajko
504-1309

PM LEK
PD ST
AD ST
DD ST

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

April 11, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: Unit 1 plant operators achieved 100% power on Friday morning April 8, 1994.

Unit 2 Status: Unit 2 plant operators entered mode 5 (cold shutdown) on Friday morning, April 9, 1994. Plant operators may place the unit in mode 4 (hot shutdown) on May 9, 1994, although the facility may be ready for mode 4 as early as April 26, 1994. The current schedule calls for the facility to be placed in mode 2 on May 16, 1994. Maintenance outage activities are continuing on the "B" train systems. Testing on emergency diesel generator 22 is scheduled to begin today.

A public meeting was held at the facility on April 8, 1994, to review the licensee's startup of Unit 1, and the status of Unit 2. NRR was represented at this meeting.

The NRC's South Texas Project Restart Panel decided on April 8, 1994, that Unit 1 will be placed in a more normal, although enhanced, inspection program. In a related matter, NRC inspectors secured from 24-hour shift coverage on Sunday morning, April 10, 1994, following xenon stabilization at 100% power. The Restart Panel will now focus on Unit 2 operational readiness and restart activities. The Restart Panel will meet on April 12, 1994, to review Unit 2 status and operational readiness activities.

Contact: L. Kokajko
504-1309

PM
PD
AD
DD

DIRECTOR HIGHLIGHTS
PROJECT DIRECTORATE IV-2

April 26, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: The facility is currently operating at 100% power. The licensee plans to reduce power to 50% over the weekend to effect repairs to the condensate booster pump seals and to complete other maintenance activities.

Unit 2 Status: Maintenance outage activities are continuing on the "B" train systems. The licensee believes that high vibration on emergency diesel generator 22 (left bank, mid-engine) may be one reason for the recent failure of the fuel injection pump hold-down studs. Another contributing cause is the hollow hold-down studs themselves. The licensee has replaced all hollow studs with solid studs on all Unit 2 diesel generators. An NRC inspection on this issue will begin next week, with regional and NRR staff on the team.

A public meeting will be held at the facility on May 4, 1994, to review the status of Unit 2, including the status of the emergency diesel generator 22. NRR will be represented at this meeting.

Mr. William T. Cottle, Group Vice-President, Nuclear, and Mr. James J. Sheppard, General Manager, Nuclear Licensing, will visit the Executive Director for Operations on Friday, May 6, 1994. The purpose of the visit is to discuss the return to service of Unit 1 and the status of Unit 2.

Contact: L. Kokajko
504-1309

PM
PD
AD
DD

DIRECTOR HIGHLIGHTS
PROJECT DIRECTORATE IV-2

May 4, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: The licensee reduced power to approximately 48% for various maintenance activities on April 29, 1994. The licensee completed cleaning the three main feedwater pump turbine lube oil coolers, and corrected seal leaks on three condensate booster pumps. The facility is currently operating at 100% power.

Unit 2 Status: Maintenance outage activities are continuing. On April 29, 1994, emergency diesel generator 21 inadvertently auto started, but did not load. The cause is unknown, but the licensee is investigating. The planned NRC inspection of the Unit 2 diesels this week will include this event during its review.

Staff members of Representative Dingell's (D-MI, Chairman) Commerce and Energy Subcommittee were briefed by various NRC staff members from the Offices of the EDO, NRR, Region IV, OI, OGC, and OCA (J. Milhoan, J. Callan, B. Hayes, L. Williamson, D. Murphy, A. Howell, B. Johnson, R. Wise, D. Rathbun, T. Madden, L. Chandler, M. Kim, and L. Kokajko) on Friday, April 29, 1994. The thrust of the briefing concerned allegation history and status, and operational history.

A public meeting will be held at the facility on May 4, 1994, to review the status of Unit 2, including the status of the emergency diesel generators. NRR will be represented at this meeting.

Mr. William T. Cottle, Group Vice-President, Nuclear, and Mr. James J. Sheppard, General Manager, Nuclear Licensing, will visit the Executive Director for Operations on Friday, May 6, 1994. The purpose of the visit is to discuss the return to service of Unit 1 and the status of Unit 2.

Contact: L. Kokajko
504-1309

PM _____
PD 5.2
AD SBH
DD JH

DIRECTOR HIGHLIGHTS
PROJECT DIRECTORATE IV-2
MAY 11, 1994

South Texas Project, Units 1 and 2

Unit 1 Status: The unit is currently operating at 100% power.

Unit 2 Status: The unit is currently in Mode 5 and expected to enter Mode 4 today. The licensee expects to be ready to restart on May 17. The licensee is continuing to evaluate the root cause of the recent inadvertent auto start of emergency diesel generator 21. This issue could affect restart if it is not resolved soon.

A restart readiness team is conducting an inspection this week and will exit on Friday, May 13. A public meeting is tentatively scheduled for May 17 at the site. If all issues from the restart action plan have been satisfactorily resolved, the confirmatory action letter is expected to be lifted at this time.

Contact: L. Kokajko
504-1309

PH LET
PD LET / SCS
AD Ed
DD JK

DIRECTOR HIGHLIGHTS

PROJECT DIRECTORATE IV-2

February 1, 1994

SOUTH TEXAS PROJECT, UNITS 1 AND 2

Restart of South Texas Project, Unit 1

As a result of the recent Operational Readiness Assessment Team inspection, a "quick-look" letter was sent by NRR to the licensee on January 27, 1994. The letter stated that, pending completion of the licensee's commitments on three items, the team would be supportive of the startup of Unit 1.

The licensee advised the staff of its readiness to resume plant operation in a letter dated January 29, 1994. This letter stated that HL&P has taken the actions necessary to address the issues identified in the confirmatory action letter, as supplemented. The licensee has requested a public meeting on February 8, with a startup scheduled between February 9 and February 10.

After the public meeting on February 8, the NRC South Texas Project Restart Panel will meet to discuss plant status and, if appropriate, those actions necessary for lifting the confirmatory action letter, as supplemented. The panel will make recommendations in regards to the restart of Unit 1, and will advise the Region IV Regional Administrator and the NRR Office Director. Additionally, the NRC will hold a public meeting to state its restart decision and the basis for that decision.

Related Issues

As noted last week's highlight, plant management issued a stop-work order on January 22, 1994, due to motor-operated valve work errors that led to a burned-up motor. The licensee augmented its configuration management action plan in response to this event. As a result, plant management lifted the stop-work order on January 26, and issued a document known as the "Plant Manager's Approved Work List," which identifies those supervisors who are responsible for field work.

Lawrence Williams and Janet Wilson, representatives of the United Kingdom's Nuclear Installation Inspectorate, will visit South Texas Project during the startup phase of operation. NRR and Region IV are coordinating this visit, although the primary interface will be with the licensee.

Finally, the PRA-based technical specification changes for the South Texas Project are in concurrence as of January 31, with DSSA and OTSB having concurred. OGC management is still reviewing the package. Although not required for restart, the goal is to issue the amendments prior to the restart of Unit 1.

Contact: L. Kokajko
504-1309

Feedwater isolation bypass valve leakage has been corrected, but must be evaluated at normal operating temperature and pressure.

An issue was identified concerning the control room envelope damper backup battery power source. While the licensee corrected this item prior to entry into mode 4, the licensee had to find a suitable replacement battery. The licensee is evaluating the impact of improper damper alignment during the control room recirculation mode. Initial information indicates that the control room would remain pressurized if the damper failed to close. (Note: So far, it appears that only one plant, Braidwood, has a similar design.)

Inoperable toxic gas monitors caused the operators to place the control room HVAC in the recirculation mode on February 8.

A post accident hydrogen monitor isolation valve is inoperable, which placed the plant in another technical specification action statement, should be repaired and returned to service on February 9.

The main steam bypass valves to the condenser were not working properly. A condenser vacuum interlock card was preventing the bypass valves from operating correctly. This problem was corrected on February 9.

Other Items of Interest

Chairman Selin will visit the South Texas Project facility on February 16.

The PRA-based technical specification changes and relief requests for the South Texas Project are awaiting incorporation of OGC comments. Although not required for restart, the goal is to issue the amendments prior to the restart of Unit 1.

Contact: L. Kokajko
504-1309

February 12, 1993

MEMORANDUM FOR: Edward L. Jordan, Director
 Office for Analysis and Evaluation
 of Operational Data

FROM: James M. Taylor
 Executive Director for Operations

SUBJECT: DIAGNOSTIC EVALUATION

By this memorandum you are directed to conduct a diagnostic evaluation of South Texas Project, Units 1 and 2. You should plan to conduct this evaluation so that the team leader can provide a briefing at the June 1993 Senior Management Meeting. Support for the diagnostic evaluation team will be provided, as necessary, by NRR and the regional offices.

As you know, this plant was discussed during the January 1993 Senior Management Meeting. From these discussions, which addressed the regulatory and operational performance history of the station, it became apparent that additional information would be needed to make an adequately informed decision regarding its overall performance. I have determined that a diagnostic evaluation of this plant is the most effective means of obtaining this information. This evaluation should be broadly structured to assess overall plant operations and the adequacy of the licensee's major programs for supporting safe plant operation.

Please forward your specific plans regarding schedule, team composition, and evaluation methodology when they are formulated.

Original Signed By:
 James M. Taylor

James M. Taylor
 Executive Director
 for Operations

cc: J. Sniezek, EDO
 J. Milhoan, RIV
 T. Murley, NRR

DISTRIBUTION:

JMTaylor	MTaylor	EDO R/F	SBlack
WReckley	EJordan	AEOD R/F	DRoss
RSpessard	DOA R/F	SRubin	RLloyd
HBailey	STP File	DCS	JSniezek

OFC :DEIIB	:C:DEIIB	:D:DOA:AEOD:AEOD	:AEOD	:EDO	:EDO
NAME:HBailey	:SRUBIN	:RLSPESSARD:DRoss	:ELJORDAN	:JSniezek	:JTaylor
DATE:	:	:	:2/11/93	:	:

D/8

9302220538 XA

File D912
11

MAR 3 1993

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

SUBJECT: DIAGNOSTIC EVALUATION OF SOUTH TEXAS PROJECT, UNITS 1 AND 2

In accordance with your memorandum dated February 12, 1993, our plan for the South Texas Project (STP) is provided in Enclosure 1. The plan includes a schedule of principal activities, the team composition and members, the overall goals and objectives and the methodology for the evaluation. Additional details will be provided by Bill Hehl, STP DET manager, when he meets with you to discuss these plans. Any substantive proposed changes in the plan will be provided to you prior to the team's arrival onsite. Region IV and NRR have concurred in this plan.

Enclosure 2 provides a suggested memorandum for your signature.

Original Signed by:
E. L. Jordan
Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

- Enclosures:
1. South Texas Project Diagnostic Evaluation Plan
 2. Suggested memo for Jordan from Taylor

DISTRIBUTION (w/encls)

MTaylor DRoss
WBateman RSpessard
EJordan SRubin
RLloyd
SBlack HBailey
WReckley DOA R/F
CHehl DEIIB R/F
AEOD R/F D912
g:\aeod\evalplan.1

OFC	: DEIIB	: C: DEIIB	: RI	: D: DOA	: AEOD	: AEOD	: NRR
NAME	: HBailey	: SRubin	: CHent	: RSpessard	: EJordan	: TMurley	: [Handwritten notes]
DATE	: 2/26/93	: 2/26/93	: 2/26/93	: 2/26/93	: 2/26/93	: 3/1/93	

OFC	: JMilhoan	:	:	:	:	:
NAME	: JMilhoan	:	:	:	:	:
DATE	: 3/1/93	:	:	:	:	:

D/10

9502070154

South Texas Project Diagnostic Evaluation Plan

1. Facility

Name: South Texas Project, Units 1 and 2
 Licensee: Houston Lighting and Power Company
 Docket No: 50-498, 50-499
 Location: Matagorda, Texas

2. Principal Activities Schedule

Licensee Notification	February 12
Advance Site Trip	March 1-2
Meetings with NRR Senior Management	Week of February 22
Meetings with RIV Senior Management	Week of March 1
Initial Team Meeting (Bethesda)	Week of March 8
Team Preparation	March 15- 26
Second Team Meeting (Bethesda)	Week of March 22
Initial Onsite Evaluation	March 29-April 9
Follow-up Onsite evaluation	April 26-30
Initial Draft of DET Report	May 12
NRR and RIV Senior Management Briefing	Week of May 17*
EDO/NRR/RIV Briefing	Week of May 17*
Exit Meeting with Licensee	Week of May 24*
DET Report to EDO	June 11*

* tentative schedule

3. Team Organization

Team Manager	Charles W. Hehl	RI
Operations and Training	*Larry E. Nicholson	RI
	John W. Thompson	AEOD
	Christopher W. Caldwell	RV
Maintenance and Testing	*Walter G. Rogers	RII
	Peter J. Prescott	AEOD
	Bruce L. Bartlett	RIII
	Robert C. Haag	RII
Engineering Design and Technical Support	*Ronald L. Lloyd	AEOD
	Sada V. Pullani	AEOD
	John L. Darby	Contractor
	David H. Shultz	Contractor

Management and Organization	*Henry A. Bailey	AEOD
	Alan Madison	AEOD
	Brian C. Haagensen	Contractor
	Frank L. Wadsworth	Contractor
Administrative Assistant	Michelle P. Smith	AEOD

* team leaders

4. Bases of Concern for the South Texas Project

South Texas Project (STP) has had a decline in performance during the past two Systematic Assessment of Licensee Performance (SALP) periods. Performance problems stem from three broad areas, which include material condition and housekeeping, human performance, and organizational performance.

Historically, hardware problems, some of which are repetitive, have resulted in numerous plant trips, transients, engineering safety features (ESF) actuations, and forced outages. Most of these system and component problems have been limited to balance-of-plant equipment, but there are longstanding safety-related hardware problems that have not been fully resolved.

Personnel errors also have resulted in reactor trips, ESF actuations, and Technical Specification violations. Other problems and concerns pertaining to organizational performance have been noted. Over the past two years, several instances of willful violations were committed by low-level licensee and contractor personnel. The Plant Operations, Maintenance and Nuclear Training Managers recently left the facility. Several instances of internal and external miscommunications have been noted. The organizational performance problem causes have not been fully identified.

5. Overall Goals and Objectives of the Diagnostic Evaluation Team

- Provide information to supplement SALP, Performance Indicators and other assessment data available to NRC senior management.
- Evaluate licensee management involvement and effectiveness with respect to safe plant operation.
- Evaluate the effectiveness of the licensee's Operational Improvement Plan (OIP) and any other improvement programs and plans.
- Determine the root causes of safety-related equipment and performance problems.

6. Specific Goals and Objectives of the Diagnostic Evaluation Team

6.1 Operations and Training

Evaluate the effectiveness (strengths, weaknesses) of operations and training through: 1) observation of control room activities during all shifts 2) observation of auxiliary and equipment operators conducting routine rounds 3) observation or training activities in the simulator. Determine the probable root causes for identified problems and areas in need of improvement.

Objectives

- Identify communication, coordination or cooperation problems and their causes.
- Identify management oversight problems and their causes.
- Identify equipment failure burdens on the operations staff and the manner by which licensee management deals with equipment problems identified by the operations staff.
- Identify additional specific performance or programmatic problems and their causes including compliance with and adequacy of plant operating procedures.
- Assess the potential for sustained and permanent improvement due to any new programs, any self-assessment or independent initiatives.
- Identify noteworthy licensee strengths in the above areas.

6.2 Maintenance and Testing

Evaluate the effectiveness (strengths, weaknesses) of maintenance and testing. Determine the probable root causes for identified problems and areas in need of improvement.

Objectives

- Evaluate the material condition of the plant, including trends and patterns in equipment and material problems.
- Identify communication, coordination or cooperation problems and their causes.
- Identify management oversight of routine activities and problems. Assess the degree of success that management has had in identifying causes of problems and correcting them particularly for complex events.

- Evaluate the work backlog and the extent of repetitious equipment failures; identify work processing problems and their causes.
- Evaluate maintenance department resources, including technical support of various maintenance programs and processes, and contractor maintenance activities.
- Evaluate the adequacy of preventative and predictive maintenance programs.
- Evaluate the test programs (TS surveillance and IST) to determine implementation of effectiveness as well as equipment trends and patterns.
- Identify additional specific performance or programmatic problems and their causes including adequacy of and compliance with maintenance and test procedures.
- Assess the potential for sustained and permanent improvement due to any new programs or practices in these areas.
- Assess human performance during the conduct of maintenance and test activities.
- Identify noteworthy licensee strengths in the above areas.

6.3 Engineering Design and Technical Support

Evaluate the effectiveness (strengths, weaknesses) of engineering design and technical support functions through: 1) accomplishment of a vertical slice inspection of an important safety system, including an assessment of its ability to perform the intended safety function through an in-depth review of mechanical, electrical, and instrumentation and control areas, 2) identification of communication, coordination, or interface problems associated with providing technical support, and 3) identification of weaknesses in areas such as technical adequacy, timeliness, or thoroughness associated with responses to emergent work, plant deficiencies, or engineering modifications.

Objectives

- Identify communication, coordination, or cooperation problems associated with the engineering and technical interface with the other plant staff.
- Evaluate the potential for sustained and permanent improvement in the technical support area due to any new programs, practices, or resource allocations.
- Identify the status of the design basis documentation program and evaluate the configuration and design basis control for selected safety systems.

- Evaluate the plant design change and modification process.
- Identify noteworthy licensee strengths in the above areas.
- Determine the probable root causes for identified problems and areas in need of improvement.

6.4 Management and Organizational Effectiveness

Evaluate the effectiveness of corporate and site management practices and systems for assuring safe plant operation. Evaluate the effectiveness (strengths, weaknesses) of the licensee's performance in planning, and controlling plant activities. Determine the effectiveness of the licensee's identification, assessment and resolution of deficiencies. Determine the probable root causes for identified problems and licensee corrective actions in the areas in need of improvement.

Objectives

- Evaluate corporate and site staff performance with respect to their approach to safety.
- Evaluate the ability of the corporate and site staff (including the QA organization) to identify and take corrective action for substantive problems.
- Evaluate the ability of corporate and site staff to implement the Operational Improvement Plan.
- Evaluate the effectiveness of programs for tracking and trending plant performance.
- Evaluate the effectiveness of programs for evaluating and implementing industry operating experience.
- Evaluate the short and long term planning processes, including the methods of assigning priority and allocating resources, and the effects of interactions with external organizations.
- Evaluate organizational communications and teamwork, including interdepartmental relationships and interfaces, and accountability.
- Evaluate the effectiveness of programs for staff development and utilization of experience.
- Assess the adequacy of improvement programs, self-assessment or independent initiatives to obtain sustained and permanent improvements.

- Identify noteworthy licensee strengths and weaknesses in the above areas.
- Identify potential causes for the weaknesses.

7. Evaluation Methodology

The diagnostic evaluation of STP will involve the overlapping implementation of information collection, problem/issue identification and cause determination steps in and across the designated functional areas in each of four levels. The first level and foundation for the diagnostic evaluation methodology principally involves finding or verifying specific technical (performance) problems or issues and a determination of their specific proximate causes. The second level involves the identification or verification of programmatic problems, issues, strengths and weaknesses in corporate and plant safety programs, policies, and administrative procedures and their relationship to first level safety issues as well as their possible relationships to higher level problems, issues and weaknesses. The third level involves the determination or verification of significant weaknesses (or strengths) associated with corporate and plant management effectiveness as the underlying cause of the lower level problems. The results of these evaluations in each functional area are expected to provide the information needed to develop and/or validate the probable root causes (level 4) for performance problems at STP. The diagnostic evaluation methodology is further described in the DET Guidelines.

Daily team meetings will be held during all phases to share team member observations, findings and issues and to coordinate team efforts in response to issues developed and/or validated at each level.

8. Evaluation Preparation

All DET members will participate in a team meeting the week of March 8, 1993. This meeting will be held in the AEOD offices in Bethesda, Maryland. At the team meeting, detailed presentations will be provided by Regional, NRR and AEOD staff on STP. Additionally, site specific information (e.g., inspection reports and licensee procedures) will be distributed and discussed to assist the DET members in the preparation process. Also, training in the DET process, site access training, and the expectations of the AEOD and DET management will be provided. DET Team Leaders will meet with their respective team members to prepare for a follow-up Team meeting to be held the week of March 22, 1993. Functional area evaluation plans should be provided to the Team Manager no later than the end of this follow-up Team meeting.

9. Diagnostic Evaluation Documentation

As issues are identified during the evaluation, each DET member will document the issues, in detail, using the Diagnostic Evaluation Observation (DEO) form. Completed DEO forms will be given to the Team

Manager and revised as new information becomes available. The DEOs will be used to brief licensee management during the on-site evaluation, and NRC management at the conclusion of the evaluation. The draft DET report input will be provided to the Team Manager using the prescribed format by May 12, 1993. Writing styles (including level of detail to be presented) should be consistent with the FitzPatrick and Zion DET reports and DET Guideline 3. Copies of the FitzPatrick and Zion reports will be provided to DET members at the March team meeting. Additionally, the team will provide Region IV with documentation of areas evaluated and time expended relative to Manual Chapter 2515 to ensure appropriate credits can be taken.

10. Coordination and Logistics

The STP DET will include an Administrative Assistant to support the administrative needs and activities of the team and will report to the Team Manager. Travel arrangements, working hours, assignment of rental cars, motel reservations, licensee background material, assemble documentation of team findings onsite and coordination of the team report preparation, conduct of administrative aspects of the diagnostic evaluation will be discussed at the team preparation meetings. Security clearances and site access training requirements must be current at that time, so that unescorted access processing can be conducted. It is anticipated that all technical DET members will receive unescorted access. Any administrative or logistical questions or concerns should be discussed with the Administrative Assistant.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MEMORANDUM FOR: Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: DIAGNOSTIC EVALUATION OF SOUTH TEXAS PROJECT, UNITS 1 AND 2

I have reviewed and approved your plans for the South Texas Project Diagnostic Evaluation as summarized below.

Schedule of Principal Activities

- Team Preparation March 8-March 26
- Onsite and Corporate Activities March 29-April 9
April 26-30
- NRR and RIV Senior Management Briefing Week of May 17*
- EDO/NRR/RIV Briefing Week of May 17*
- Exit Meeting with Licensee Week of May 24*
- DET Report to EDO June 11*

* Tentative Dates

Team Organization

Team Manager	Charles W. Hehl	RI
Operations and Training	*Larry E. Nicholson John W. Thompson Christopher W. Caldwell	RI AEOD RV
Maintenance and Testing	*Walter G. Rogers Peter J. Prescott Bruce L. Bartlett Robert C. Haag	RII AEOD RIII RII
Engineering Design and Technical Support	*Ronald L. Lloyd Sada V. Pullani John L. Darby David H. Shultz	AEOD AEOD Contractor Contractor

Management and Organization

*Henry A. Bailey

AEOD

Alan Madison

AEOD

Brian C. Haagensen

Contractor

Frank L. Wadsworth

Contractor

Administrative Assistant

Michelle P. Smith

AEOD

* team leaders

Evaluation Methodology

The Diagnostic Evaluation Team (DET) will ascertain the current status of plant performance in the functional areas of engineering design and technical support, operations and training, maintenance and testing, and management and organization by means of observations, interviews, and document review. The evaluation will consider activities conducted at corporate headquarters as well as at the plant site. If significant problems are noted, emphasis will be placed on determining the root-cause(s). As necessary, the evaluation process will progress from the identification of problems, proximate causes, and related programmatic issues to the consideration of management strengths and weaknesses.

Notwithstanding these confirmed plans, I recognize that the team members may be subject to minor change due to personnel availability. Furthermore, the DET should remain flexible and receptive to new approaches and information. The DET manager, in consultation with AEOD management, should be prepared to modify the schedule, team composition, functional areas and methodology, as necessary, to more effectively react to developing issues.

Following the onsite evaluation activities, the DET will prepare an evaluation report for submittal to me in accordance with NRC Management Directive 8.7, "NRC Diagnostic Evaluation Program." The team manager briefings and report format should be in accordance with my memorandum to you regarding the diagnostic evaluation program of June 26, 1990.

James M. Taylor

Executive Director for Operations

cc: J. Milhoan, RIV
T. Murley, NRR

Management and Organization

*Henry A. Bailey	AEOD
Alan Madison	AEOD
Brian C. Haagensen	Contractor
Frank L. Wadsworth	Contractor

Administrative Assistant

Michelle P. Smith	AEOD
-------------------	------

* Team Leaders

Evaluation Methodology

The Diagnostic Evaluation Team (DET) will ascertain the current status of plant performance in the functional areas of engineering design and technical support, operations and training, maintenance and testing, and management and organization by means of observations, interviews, and document review. The evaluation will consider activities conducted at corporate headquarters as well as at the plant site. If significant problems are noted, emphasis will be placed on determining the root-cause(s). As necessary, the evaluation process will progress from the identification of problems, proximate causes, and related programmatic issues to the consideration of management strengths and weaknesses.

Notwithstanding these confirmed plans, I recognize that the team members may be subject to minor change due to personnel availability. Furthermore, the DET should remain flexible and receptive to new approaches and information. The DET manager, in consultation with AEOD management, should be prepared to modify the schedule, team composition, functional areas and methodology, as necessary, to more effectively react to developing issues.

Following the onsite evaluation activities, the DET will prepare an evaluation report for submittal to me in accordance with NRC Management Directive 8.7, "NRC Diagnostic Evaluation Program." The team manager briefings and report format should be in accordance with my memorandum to you regarding the diagnostic evaluation program of June 26, 1990.

James M. Taylor
Executive Director for Operations

cc: J. Milhoan, RIV
T. Murley, NRR

Distribution

EDO R/F		
JMTaylor		
JSniezek	OEDO	EDO
HThompson	JSniezek	JMTaylor
JBlaha	03/ /93	03/ /93

JUN 10 1993

MEMORANDUM FOR: James M. Taylor
 Executive Director for Operations

FROM: Edward L. Jordan, Director
 Office for Analysis and Evaluation
 of Operational Data

SUBJECT: TRANSMITTAL OF THE DIAGNOSTIC EVALUATION TEAM REPORT FOR
 SOUTH TEXAS PROJECT

In accordance with NRC Manual Chapter 0520, the Diagnostic Evaluation Team Report for South Texas Project (Enclosure 1) is provided for your information and action. Recommendations for NRC staff actions resulting from the diagnostic evaluation of South Texas will be forwarded under separate memorandum.

Following your review and any subsequent discussions with NRC senior management, the report should be forwarded to the licensee and the Public Document Room. Until these actions are taken, the subject information is considered predecisional. A draft letter, to transmit the report to the licensee, is contained in Enclosure 2. This transmittal letter has been reviewed with both Region IV and NRR personnel.

If I can provide any additional information or clarification regarding the report, please contact me.

151
 Edward L. Jordan, Director
 Office for Analysis and Evaluation
 of Operational Data

Enclosures:

1. Diagnostic Evaluation Team Report
 for South Texas Project
2. Letter to HL&P from Taylor

DISTRIBUTION: See page 2

OFFICE:	AEOD:DOA	D:DOA:AEOD	DD:AEOD	D:NRR	RA:RIW
NAME:	CA [Signature]	RLSpessard	DFRoss	TEMarley	JLM11hoan
DATE:	06/8/93ms	06/ /93	06/ /93	06/ /93	06/ /93
OFFICE:	D:AEOD				
NAME:	ELJordan				
DATE:	06/8/93				

OFFICIAL RECORD COPY

H:TRANSDT.STP

9306170255 XA

D/13

JUN 10 1993

- 2 -

DISTRIBUTION:

With All Enclosures:

ELJordan, AEOD
DFRoss, AEOD
RLSpessard, AEOD
CWHehl, AEOD
SDRubin, AEOD
DOA r/f
DEIIB Chron File
DEIIB File D912

With Enclosure 1:

JLMilhoan, RIV
TEMurley, NRR

Without Enclosures:

DCS
EDO r/f
JSniezek, EDO
HThompson, EDO
JLieberman, OE
JBlaha, EDO
MTaylor
AEOD r/f

JUN 16 1993.

MEMORANDUM FOR: Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

James L. Milhoan, Regional Administrator
Region IV

FROM: Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

SUBJECT: SOUTH TEXAS DIAGNOSTIC EVALUATION PROPOSED FOLLOWUP ACTIONS

Enclosed for your review and concurrence are proposed staff actions resulting from the South Texas Project evaluation.

Your expeditious review of this document is requested. Comments regarding these staff actions are requested by June 25, 1993. If there are any questions regarding either document, please contact Ron Lloyd at (301) 492-4149.

**Original Signed by:
Denwood F. Ross**

W Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

Enclosure:
STP Evaluation Staff Actions

DISTRIBUTION:

ELJordan	SDRubin
DFRoss	CWHehl
AEOD r/f	DEIIB Chron File
RLSpessard	DEIIB File 0912
DOA r/f	DCS

*See previous page for concurrence

OFFICE:	AEOD:DOA	D:DOA:AEOD	DD:AEOD	D:AEOD	
NAME:	CWHehl*	LSpessard*	DFRoss	ELJordan	
DATE:	06/10/93ms	06/10/93	06/ /93	06/16/93	

OFFICIAL RECORD COPY

H:CURSTP.DET

9306210090 XA

D/14

STAFF ACTIONS: SOUTH TEXAS PROJECT

1. ISSUE: A number of staffing issues were raised as a result of the diagnostic evaluation at STP. The scope of responsibilities and administrative burdens of the operating staff was excessive given the conditions that were prevalent at STP during the DET evaluation, the design of the facility, and operator workarounds. The team concluded that operator staffing, which exceeded TS minimum requirements, was significantly strained to accomplish a scenario involving shutdown from outside the control room. The scenario used during preoperational testing, that demonstrated the capability to shutdown from outside the control room with TS minimum staffing, did not include additional operational tasks associated with the fire brigade and emergency preparedness.

- ACTION:
- (a) Assess conditions at STP and the administrative burdens overloading the operating staff. Issue direction as appropriate.
 - (b) Assess the assignment of multiple responsibilities to operating staff to mitigate resource-intensive accidents such as shutdown from outside the control room. Incorporate any safety and generic findings into the ongoing NRC study of shift staffing at nuclear power plants.

RESPONSIBLE OFFICE: NRR, with Region IV assistance

2. ISSUE: The ability of the essential chilled water system to perform its safety function, during a design basis accident under low heat load conditions was never demonstrated, either through testing of the system, or by engineering analysis. Technical specification or post maintenance required testing also did not ensure that the essential chilled water system would be operable during accident conditions. The system had a total design cooling capacity of 450 tons per train, which exceeds the requirements for the highest expected heat load, and greatly exceeds the expected heat load for cold weather conditions. The licensee has experienced surging and vibration of chillers, particularly when throttling ECW flow because of cool weather conditions. If an accident occurred during cold weather and all chillers operated as designed, in response to an engineered safety feature actuation, the chillers would be significantly under-loaded, potentially causing surging and failure. Failure of the chillers would result in loss of essential chilled water system cooling of safety-related equipment. The piping design configuration did not allow the system to be tested with heat loads representative of those anticipated during accident conditions. The licensee indicated that the existing analysis did not adequately address the issue of

chiller operation during a design basis accident under low heat load conditions, and agreed to perform an engineering analysis by September 1993.

- ACTION:
- (a) Assess the licensee's engineering analysis regarding chiller operation under low heat load accident conditions. Issue direction as appropriate.
 - (b) Assess the need and scope of baseline testing of the essential chilled water system that would more closely simulate design basis accident heat load conditions and validate operability. Issue direction as appropriate.
 - (c) Assess the need and scope of periodic testing of the essential chilled water system to ensure that it can perform its safety function. Issue direction as appropriate.

RESPONSIBLE OFFICE: NRR, with Region IV assistance

3. ISSUE: A limited review of the fire protection area identified many fire protection deficiencies at STP associated with: shrinkage of penetration seals, the fire protection computer alarm system and operator training on the system, a large backlog of service requests on fire protection systems, control of transient combustibles in the plant, and fire brigade leader qualification. STP management did not oversee and direct the efforts to resolve the above deficiencies in a timely manner.

ACTION: Assess the need to perform a fire protection followup inspection at STP.

RESPONSIBLE OFFICE: Region IV, with NRR assistance

4. ISSUE: To protect HVAC ducts from collapsing during a tornado, outside ventilation intake dampers are designed to close automatically within .25 seconds, given a differential pressure of 3 psi. Collapse of the HVAC ducts would prevent cooling of safety-related or important to safety components and systems. Thirty dampers at STP were never tested once installed to verify that they would operate as designed. An STP preventive maintenance action was scheduled on a ten year frequency, but had never been performed. STP agreed to motion test the dampers to verify operability.

- ACTION:
- (a) Evaluate the licensee's surveillance test procedures and results. Issue direction as appropriate.
 - (b) Assess the extent and frequency of damper motion testing in the industry. Evaluate the need to establish technical specification damper motion

testing requirements, and subsequent motion testing of ventilation dampers affecting safety-related equipment. Issue direction as appropriate.

- (c) Assess the need and scope of periodic testing of the dampers to ensure that they can perform their safety function. Issue direction as appropriate.

RESPONSIBLE OFFICE: NRR, with Region IV assistance

5. ISSUE: The findings of the team indicate that the licensee was deficient in several areas of operations, maintenance and testing, and engineering support. The NRC's inspection program did not fully identify many of the concerns, and in some instances, provided limited insights into performance, such as the Maintenance Team Inspection, and recent engineering and operations assessments.

ACTION: In light of the team findings, evaluate the adequacy of existing inspection modules and implementation, particularly in the maintenance, engineering, and self assessment areas.

RESPONSIBLE OFFICE: NRR, with Region IV assistance

6. ISSUE: STP has a unique design feature called "the rapid refueling system." This system was designed with a "one-lift concept" in which the missile shield, reactor vessel head, upper core-support structure, and rod cluster control assemblies would be removed as a single unit. One feature of this design was to withdraw all of the rod cluster control assemblies into the head and upper internals package where they would be held for the duration of the refueling process. This feature was called "rod lockout" and was usually performed with the plant in mode 5. However, the licensee has documentation from Westinghouse (dated June 17, 1992) that indicated that the safety analysis for the boron dilution event did not address the condition with the control rods fully out in mode 5. Additionally, there were no TS requirements governing mode restrictions for this operation.

ACTION:

(a) Assess the adequacy of the safety analysis associated with the rapid refueling method at STP with the control rods "locked out." Issue direction as appropriate.

(b) Evaluate the adequacy of the STP TS during rapid refueling activities. Issue direction as appropriate.

RESPONSIBLE OFFICE: NRR

7. ISSUE: At STP nine standby diesel generator (SDG) high pressure fuel injection pump hold down stud failures occurred from 1987 through 1993. Each time a failure occurred, the SDG

was declared inoperable. Subsequent licensee operability reviews determined that failure of the fuel injector hold down studs would render the associated cylinder inoperable, but would not render the SDG inoperable. The licensee received correspondence from Cooper-Bessemer indicating that as many as 2 cylinders could be out of service and the SDG would still be operable. However there was no analysis available for team review.

The licensee attributed the failures to various root causes such as, faulty material, use of improper installation tools and improper lubrication of the hold down studs prior to torquing. Preliminary indications from the licensee also indicated that other utilities with Cooper-Bessemer SDGs have experienced fuel injector hold down stud failures. However, to date no formal industry notification has been issued by the licensee or the vendor.

- ACTION:
- (a) Evaluate the licensee's SDG operability analysis for various scenarios involving multiple inoperable cylinders during accident conditions. Issue guidance as appropriate.
 - (b) Evaluate the need to provide additional regulatory correspondence regarding the multiple fuel injector hold down stud failures. Issue guidance as appropriate.

RESPONSIBLE OFFICE: NRR, with Region IV and AEOD assistance

8. ISSUE: The standard TS guidance regarding overtime appears to have been developed based on a normal 8-hour shift. The licensee was on site-wide 12-hour shifts. As a result, any need to hold an operator over resulted in exceeding the TS overtime guidance by working more than 24 hours in a 48 hour period. This situation had occurred relatively frequently, largely because of minimally staffed shift crews.

ACTION: Evaluate the applicability of TS overtime requirements for plants on 12-hour shifts. Issue direction as appropriate.

RESPONSIBLE OFFICE: NRR

9. ISSUE: In the transmittal letter forwarding the diagnostic evaluation report, HL&P was requested to review the report and respond within 60 days describing actions they intend to take to address root causes of identified weaknesses.

ACTION: Review and evaluate the licensee's response to the diagnostic evaluation report for completeness. Prepare an appropriate reply for EDO signature.

RESPONSIBLE OFFICE: Region IV, with assistance from NRR and AEOD



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 16 1993

MEMORANDUM FOR: Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

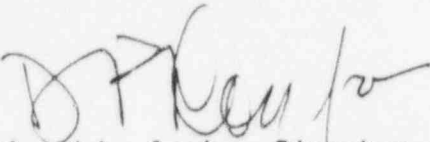
James L. Milhoan, Regional Administrator
Region IV

FROM: Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

SUBJECT: SOUTH TEXAS DIAGNOSTIC EVALUATION PROPOSED FOLLOWUP ACTIONS

Enclosed for your review and concurrence are proposed staff actions resulting from the South Texas Project evaluation.

Your expeditious review of this document is requested. Comments regarding these staff actions are requested by June 25, 1993. If there are any questions regarding either document, please contact Ron Lloyd at (301) 492-4149.


Edward L. Jordan, Director
Office for Analysis and Evaluation
of Operational Data

Enclosure:
STP Evaluation Staff Actions



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

JUN 22 1993

Docket Nos. 50-498, 50-499

Mr. Donald D. Jordan
Chairman of the Board
and Chief Executive Officer
Houston Lighting and Power Company
Post Office Box 1700
Houston, TX 77251

Dear Mr. Jordan:

On June 15-16, 1993, NRC senior managers met to evaluate the nuclear safety performance of operating reactors, fuel facilities, and other materials licensees. The NRC conducts this meeting semiannually to determine if the safety performance of the various licensees exhibits sufficient weaknesses to warrant increased NRC attention. In addition, at this meeting, senior managers identify specific plants that have demonstrated a level of safety performance that deserves formal recognition. At the June 1993 Senior Management Meeting, the South Texas plant (Unit 1 and 2) was discussed.

The South Texas plant (Units 1 and 2) was categorized as requiring close monitoring by the NRC. Plants in this category have been identified as having weaknesses that warrant increased NRC attention until the licensee demonstrates a period of improved performance. A summary of NRC discussions related to the South Texas plant follows:

South Texas Project (STP) has had declining performance during the last two Systematic Assessment of Licensee Performance (SALP) periods, stemming mainly from material condition and housekeeping, human performance, and organizational performance. Performance has continued to decline at STP. A Diagnostic Evaluation Team (DET) assessment was conducted at STP which identified performance deficiencies in the areas of operations, maintenance and testing, and engineering support as well as weaknesses in management that had contributed to these deficiencies. STP has been requested to provide the Executive Director for Operations with its plans for addressing root causes of performance deficiencies within 60 days of the DET report, which was issued on June 10, 1993. In addition, before restart of Unit 1 or 2 can be considered by the Regional Administrator, resolution of issues addressed in the Regional Administrator's Confirmatory Action Letters of February 5 and May 7, 1993, and readiness to resume operations must be verified.

Based on these considerations, the NRC plans to continue to closely monitor the programs and performance at the South Texas plant to assure development and implementation of effective corrective actions programs.

930706 0324

D/15

Mr. Donald D. Jordan

- 2 -

JUN 22 1993

An NRC Commission Meeting, open to the public, has been scheduled to be held in the Commissioners' Conference Room in Rockville, Maryland, on June 25, 1993, at 9:30 a.m., to review the results of the latest meeting of NRC senior managers. Mr. James L. Milhoan, the Region IV Administrator, has discussed the bases for our conclusions with regard to the South Texas plant with members of your staff.

If you have any questions regarding this matter, do not hesitate to call me.

Sincerely,

Original signed by
James M. Taylor

James M. Taylor
Executive Director
for Operations

cc: See next page

Mr. Donald D. Jordan

- 3 -

JUN 22 1993

cc w/enclosure:

Mr. J. Tapia
Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Post Office Box 910
Bay City, Texas 77414

Mr. J. C. Lanier/M. B. Lee
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, Texas 78767

Mr. K. J. Fiedler
Mr. M. T. Hardt
City Public Service Board
Post Office Box 1771
San Antonio, Texas 78296

Mr. D. E. Ward
Mr. T. M. Puckett
Central Power and Light Company
Post Office Box 2121
Corpus Christi, Texas 78403

INPO
Records Center
700 Galleria Parkway
Atlanta, Georgia 30339-3064

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Mr. Joseph M. Hendrie
50 Bellport Lane
Bellport, New York 11713

Judge, Matagorda County
Matagorda County Courthouse
1700 Seventh Street
Bay City, Texas 77414

Mr. Jack R. Newman, Esq.
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, D.C. 20036

Licensing Representative
Houston Lighting and Power Company
Suite 610
Three Metro Center
Bethesda, Maryland 20814

Bureau of Radiation Control
State of Texas
1101 West 49th Street
Austin, Texas 78756

Mr. Rufus S. Scott
Associate General Counsel
Houston Lighting and Power Company
Post Office Box 61867
Houston, Texas 77208

Mr. William J. Jump
General Manager, Nuclear Licensing
Houston Lighting and Power Company
Post Office Box 289
Wadsworth, Texas 77483

June 23, 1993

MEMORANDUM FOR: The Chairman
Commissioner Rogers
Commissioner Curtiss
Commissioner Remick
Commissioner de Planque

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: RESULTS OF THE NRC SENIOR MANAGEMENT MEETING
HELD JUNE 14-16, 1993

The purpose of this memorandum is to provide the Commission with a summary of discussions held at the June 14-16, 1993 NRC Senior Management Meeting.

As the Commission is aware, NRC senior managers meet approximately biannually to review the performance of operating nuclear power plants licensed by the NRC. These meetings are conducted to assure NRC is focusing its resources on plants and related issues of greatest safety significance.

Nuclear power plant performance was a major topic of discussion at this latest NRC Management Meeting. A summary of the results of this discussion is presented in Enclosure 1. Enclosure 2 is a draft summary of the June 14-16, 1993 NRC Senior Management Meeting and Enclosure 3 is a list of attendees at that meeting.

Please note that the information contained with this memorandum is sensitive and will be first discussed publicly at the June 25, 1993 Commission meeting.

Original signed by
James M. Taylor

James M. Taylor
Executive Director
for Operations


9410210127

D/16

SOUTH TEXAS PROJECT

This was the third time South Texas Project (STP) was discussed at the SMM; it was discussed previously in January 1991 and January 1993. South Texas Project has had declining performance during the last two Systematic Assessment of Licensee Performance (SALP) periods, stemming mainly from material condition and housekeeping, human performance, and organizational performance. In addition, repetitive hardware problems have resulted in numerous plant trips, transients, engineering safety feature actuations, and forced outages.

Performance has continued to decline at STP since the last SMM. Actions taken by the licensee to improve the implementation of the corrective action program, and other licensee programs, have not been effective. Several management changes have been made at STP since the last SMM. Among them are the Maintenance Manager; Group Vice President - Nuclear; and Vice President - Nuclear Operations. In addition, a new position, that of Vice President -



PREDECISIONAL

Nuclear Support, has been added. Because these changes are recent, it is too early to tell the effectiveness of the changes.

STP has been issued five civil penalties since the last SMM. The first involved personnel errors that resulted in work being performed on the wrong component, wrong train, and wrong unit. The second involved the failure to independently test all circuits associated with the reactor trip breaker shunt coil, the licensee's entry into a shutdown Technical Specification (TS) because of this deficient test and failure to inform licensed operators of the condition, and failure to follow procedural guidance for issuance of TS guidance. The third involved several violations, including inappropriate voiding of a post-maintenance test on an Emergency Diesel Generator (EDG) following painting, resulting in its being inoperable for 24 days due to paint dripping in to fuel metering parts. In addition, at the same time, a second EDG was inoperable for 61 hours. The fourth involved several violations, including an inadequate surveillance test program for the turbine driven auxiliary feedwater pump, resulting in its being inoperable for 33 days. For a period of 61 hours at least two EDGs were out of service on Unit 1 along with the turbine driven auxiliary feedwater pump. The fifth involved one train of low head safety injection that was inoperable for 18 months, because of motor operated valve (MOV) deficiencies. This violation was discovered during a special MOV program inspection. The inspection also disclosed additional weaknesses in the licensee's corrective program to address deficient conditions associated with MOVs.

A Confirmatory Action Letter (CAL) was issued to STP as a result of the turbine driven auxiliary feedwater pump problems, which was supplemented in May 1993 because of additional problems. A DET reviewed the situation at STP and exited with the licensee on June 3, 1993. The DET identified performance deficiencies in the areas of operations, maintenance and testing, and engineering support and found weaknesses in management had contributed to these deficiencies. The team found that although management had been aware of many of the problems for some time, they had not been effective in resolving underlying root causes and effecting improved performance. The team documented the following root causes of the problems at STP: (1) failure of management to provide adequate support, (2) ineffective management direction and oversight, (3) failure to effectively utilize self-assessment and quality oversight functions, and (4) ineffective root cause and corrective action process. An oversight panel composed of managers from Region IV and MRR has been established to assure a consistent agency approach to the issues being identified, to assure proper coordination of followup on safety issues, to schedule significant meetings and inspections, to assure that concerns of different NRC offices are properly addressed, and to assure proper coordination of the followup of issues identified by the DET. Manual Chapter 0350 has been invoked for restart approval.

In view of their continuing deterioration in performance, the senior managers decided to place STP on the NRC's Watch List as a Category 2 plant.