



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064**

August 22, 2000

William T. Cottle, President and
Chief Executive Officer
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, Texas 77483

**SUBJECT: NRC'S SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION
INTEGRATED INSPECTION REPORT NO. 50-498/00-10; 50-499/00-10**

Dear Mr. Cottle:

On August 12, 2000, the NRC completed an inspection at the South Texas Project Electric Generating Station, Units 1 and 2, facility. The enclosed report presents the results of that inspection. The results of the inspection were discussed with you and other members of your staff on August 15, 2000.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible for the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (The Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

/RA/

Joseph I. Tapia, Chief
Project Branch A
Division of Reactor Projects

STP Nuclear Operating Company

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Docket Nos.: 50-498

50-499

License Nos.: NPF-76

NPF-80

Enclosure:

NRC Inspection Report No.

50-498/00-10; 50-499/00-10

cc w/enclosure:

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Branch Chief, DRP/TSS **(LAY)**

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Only inspection reports to the following:

D. Lange **(DJL)**

NRR Event Tracking System **(IPAS)**

STP Site Secretary **(LAR)**

Dale Thatcher **(DFT)**

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RIV:SRI	RI	PE:DRP/A	C:DRP/A	
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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.: 50-498
50-499

License Nos.: NPF-76
NPF-80

Report No.: 50-498/00-10
50-499/00-10

Licensee: STP Nuclear Operating Company

Facility: South Texas Project Electric Generating Station, Units 1 and 2

Location: FM 521 - 8 miles west of Wadsworth
Wadsworth, Texas 77483

Dates: June 25 through August 12, 2000

Inspectors: Neil F. O'Keefe, Senior Resident Inspector
Gilbert L. Guerra, Resident Inspector
Don B. Allen, Project Engineer, Project Branch A

Approved By: J. I. Tapia, Chief, Project Branch A

ATTACHMENTS:

Attachment 1: Supplemental Information

Attachment 2: NRC's Revised Reactor Oversight Program

SUMMARY OF FINDINGS

South Texas Project Nuclear Station, Units 1 & 2
NRC Inspection Report 50-498/00-10; 50-499/00-10

IR 05000498-00-10, 05000499-00-10; 6/25 - 8/12/00; STP Nuclear Operating Company; South Texas Project; routine resident inspector report.

No findings were identified.

Report Details

Summary of Plant Status: Units 1 and 2 operated at full power throughout the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignments (71111.04)

.1 Partial System Walkdown

a. Inspection Scope

The inspectors performed a partial system walkdown of the Unit 1 dc power system and batteries. The inspectors used Plant Surveillance Procedure 0PSP02-EA-0002, Revision 6, "ESF Power Availability," as guidance to ensure system operability. The inspectors also performed an equipment alignment verification of the Unit 1 Train A component cooling water system while Train B was out of service for planned maintenance. The inspectors verified the equipment was in its proper lineup and ensured that the components were in good material condition.

b. Findings

No findings were identified.

.2 Semiannual Detailed Inspection

a. Inspection Scope

The inspectors conducted a complete walkdown of the Unit 2 electrical auxiliary building/control room emergency ventilation system. The inspectors verified correct alignment of electrical power and instrument air supply using the system lineups from Plant Operating Procedure 0POP02-HE-0001, Revision 14, "Electrical Auxiliary Building Ventilation System," and the applicable piping and instrumentation drawings. The inspectors observed the material condition of system equipment and discussed maintenance rule performance and failure history with the system engineer. The inspectors reviewed the risk ranking document for the licensee's Graded Quality Assurance Program for risk insights on the system and specific components.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Routine Fire Area Walkdowns

a. Inspection Scope

The inspectors observed the control of transient combustibles and ignition sources, the material condition and operational lineup of reactor plant active and passive fire protection systems, and the material condition and operational status of fire barriers used to prevent fire damage or fire propagation. The following plant areas were inspected:

- Unit 1 Essential Cooling Water Building (Fire Areas 53, 54, and 55)
- Unit 1 Relay Room (Fire Zone Z032)
- Unit 1 Mechanical Auxiliary Building (Fire Areas 22, 26, 27, and 29)

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification (71111.11)

a. Inspection Scope

The inspectors observed two licensed operator regualification simulator training scenarios on July 24, 2000. Training topics observed included unreliable offsite power and procedure use and adherence.

b. Findings

No issues were identified.

1R12 Maintenance Rule Implementation (71111.12)

.1 Maintenance Rule Functional Failure Review

a. Inspection Scope

The inspectors reviewed the licensee's maintenance rule implementation for equipment performance problems, including:

- Unit 2 electrical auxiliary building smoke purge damper failures due to rusting.
- Emergency diesel generator governor control problem during cooldown cycle.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed selected activities regarding risk evaluations and overall plant configuration control. The inspectors discussed emergent work issues with work control personnel and reviewed the potential risk impact of these activities to verify that the work was adequately planned, controlled, and executed. The activities reviewed were associated with:

- Unit 2 E2B11 battery breaker replacement
- Unit 2 Essential Chiller 22C being inoperable while Train C smoke purge damper was inoperable
- Unit 2 Loop 1 Set 1 over-temperature/delta-temperature troubleshooting
- Unit 1 Channel 3 Inverter 1203 rectifier ac input breaker failure
- Starting Air Compressors 13 and 14 for Standby Diesel Generator 12 not functioning properly, causing receiver relief valves to lift

b. Findings

No findings were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed operability evaluations and supporting documents associated with the following problems in accordance with Inspection Procedure 71111, Attachment 15:

- Unit 2 safety injection accumulator sample valve leaking past valve seat
- Solid state protection system logic test switch left in wrong position
- Licensee's evaluation of Industry event information regarding dose equivalent iodine calculations

b. Findings

No issues were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed and observed work activities associated with the permanent plant modification to Unit 2 to run the control room annunciator system from the integrated computer system. Design Change Package 95-4416-17 was reviewed and discussed with the responsible project engineers. Inspectors also observed training provided to operators on the modification and the use of temporary annunciator mimics. Portions of the installation work were observed. The inspectors confirmed that the impact of the removal of portions of the system from service to control room operators was minimal.

b. Findings

No issues were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed and/or evaluated postmaintenance testing performed on the following equipment to determine whether the tests adequately confirmed equipment operability:

- Unit 1, Train B control room ventilation preventive maintenance (WANs 140774, 141630, and 109142)
- Unit 2 Loop 1 Set 1 over-temperature/delta-temperature repair (WAN 186915)
- Unit 2 Train B steam generator power-operated relief valve repair (WAN 187531)

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors evaluated the adequacy of periodic testing of the following important nuclear plant equipment, including aspects such as preconditioning; the impact of testing during plant operations; the adequacy of acceptance criteria, including test frequency and test equipment accuracy, range, and calibration; procedure adherence; record keeping; the restoration of standby equipment; and the effectiveness of the licensee's problem identification and correction program. The inspectors observed or reviewed the following tests:

- 0PSP03-DG-0003, "Emergency Diesel Generator 13," Revision 17 (Unit 1)
- 0PSP07-ZQ-0001, "Weekly Chemistry Surveillance Logs," Revision 3 (Unit 1)
- 0PSP06-PK-0001, "4.16KV Class 1E Undervoltage Relay Channel Calibration - Channel 1," Revision 6 (Unit 2)
- 0PSP06-PK-0005, "4.16KV Class 1E Degraded Voltage Relay Channel Calibration - Channel 1," Revision 6 (Unit 2)
- 0PSP03-AF-0007, "Auxiliary Feedwater Pump 24 Inservice Test," Revision 16 (Unit 2)

b. Findings

No issues were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following plant temporary modifications in accordance with Inspection Procedure 71111, Attachment 23, with respect to design bases documentation, approvals, and tracking. The inspectors reviewed the 10 CFR 50.59 screening and updated procedures and drawings. The inspectors also walked down the modifications to assure that the tags were in place:

- Temporary Modification T2-99-16653-1, Revision 0, "Disable vibration monitoring trips from Steam Generator Feedwater Pump 21"
- Temporary Modification T2-99-16653-1, Revision 1, "Raise Alert and Danger Alarm Setpoints for Steam Generator Feedwater Pump 21 Vibration Monitor"

During the inspection the inspectors reviewed the following documents:

- Plant General Procedure 0PGP03-ZO-0003, Revision 18, "Temporary Modifications"
- Plant General Procedure 0POP09-AN-06M3, Revision 13, "Annunciator Lampbox 6M03 Response Instructions"

b. Findings

No findings were identified.

Emergency Preparedness

EP6 Drill Evaluation (71111.06)

a. Inspection Scope

The inspectors evaluated an emergency preparedness drill conducted on July 13, 2000, using Inspection Procedure 71114, Attachment 6. This evaluation included reviewing the scenario and drill objectives, observing licensee performance in the emergency facilities, observing the licensee's critique, and discussing observations and the licensee's findings with emergency preparedness managers. Emphasis was placed on confirming proper event classification and timely reporting.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed the following performance indicators for the period from the first quarter of 1999 through the first quarter of 2000, to assess the accuracy and completeness of the indicator. The inspectors used Nuclear Energy Institute Guidance NEI 99-02, "Performance Indicator Verification," Revision 0, as guidance for this inspection.

- Reactor coolant system specific activity

b. Findings

No findings were identified.

4OA5 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. W. Cottle and other members of licensee management at an exit meeting on August 15, 2000. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1

PARTIAL LIST OF PERSONS CONTACTED

Licensee

P. Arrington, Licensing Specialist
T. Cloninger, Vice President, Generation
K. Coates, Manager, Maintenance
W. Cottle, President and Chief Executive Officer
R. Gangluff, Manager, Chemistry
E. Halpin, Manager, Operations
J. Johnson, Manager, Engineering Quality
A. Kent, Manager, Electrical/Instrumentation and Controls, Systems Engineering
A. Mikus, Supervisor, Communications and Public Affairs
J. Sheppard, Vice President, Engineering and Technical Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Closed

None.

Discussed

None.

LIST OF ACRONYMS AND INITIALISMS USED

ESF engineered safety feature

ATTACHMENT 2

NRC'S REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
<ul style="list-style-type: none">•Initiating Events•Mitigating Systems•Barrier Integrity•Emergency Preparedness	<ul style="list-style-type: none">•Occupational•Public	<ul style="list-style-type: none">•Physical Protection

To monitor these seven cornerstones of safety, the NRC used two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, or RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.