UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

October 4, 2018

Mr. G. T. Powell
President and CEO
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION – NRC BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000498/2018007 AND 0500499/2018007

Dear Mr. Powell:

On August 23, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your South Texas Project Electric Generating Station, Units 1 and 2 facility and discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's corrective action program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems and to confirm that the station was complying with NRC regulations and licensee standards for corrective action programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally, the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

The NRC inspectors did not identify any finding or violation of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Gerond A. George, Acting Team Leader
Inspection Program and Assessment Team
Division of Reactor Safety

Docket Nos. 50-498; 50-499
Licenses Nos. NPF-76; NPF-80

Enclosure:
Inspection Report 05000498/2018007 and
0500499/2018007
w/ Attachment: Information Request

U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers:	05000498, 05000499
License Numbers:	NPF-76, NPF-80
Report Numbers:	05000498/2018007 and 0500499/2018007
Enterprise Identifier:	I-2018-007-0006
Licensee:	STP Nuclear Operating Company
Facility:	South Texas Project Electric Generating Station, Units 1 and 2
Location:	Wadsworth, Texas
Inspection Dates:	August 6, 2018, to August 23, 2018
Inspectors:	H. Freeman, Senior Reactor Inspector (Team Lead) J. McHugh, Senior Reactor Technology Instructor A. Athar, Project Engineer J. Choate, Resident Inspector R. Lanfear, Physical Security Specialist
Approved By:	G. George, Acting Team Leader Inspector Program and Assessment Team Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a biennial problem identification and resolution inspection at South Texas Project Electric Generating Station, Units 1 and 2 in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information. NRC-identified and self-revealed findings, violations, and additional items are summarized in the table below. Licensee-identified non-cited violations are documented in the Inspection Results at the end of this report.

List of Findings and Violations

No findings or violations of more than minor significance were identified during the inspection.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

OTHER ACTIVITIES – BASELINE

71152—Problem Identification and Resolution

Biennial Team Inspection (1 Sample)

The inspectors performed a biennial assessment of the licensee's corrective action program, use of operating experience, self-assessments and audits, and safety-conscious work environment. The assessment is documented below:

(1) Corrective Action Program Effectiveness: Problem Identification, Problem Prioritization and Evaluation, and Corrective Actions – The inspection team reviewed the station's corrective action program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems, and to confirm that the station was complying with NRC regulations and licensee. The sample included approximately 100 condition reports with associated root and apparent cause evaluations. This included an in-depth 5-year review of condition reports associated with the electrical auxiliary building's heating, ventilation, and air condition system and the essential cooling water system.

(2) Operating Experience, Self-Assessments, and Audits – The team evaluated the station's processes for use of industry and NRC operating experience. The team also evaluated the effectiveness of the station's audits and self-assessments program. The sample included industry operating experience communications including Part 21 notifications and other vendor correspondence, NRC generic communications, and publications from various industry groups including Institute of Nuclear Power Operations (INPO) and Electric Power Research Institute, plus associated site evaluations.

(3) Safety-Conscious Work Environment – The team evaluated the station's safety-conscious work environment. The team interviewed 53 station personnel in 5 focus groups and individual interviews. The individuals were selected randomly from available members of the security, instrumentation and controls, mechanical maintenance, electrical maintenance, operations, and engineering organizations. The team also interviewed members of the employee concerns program (including the program manager) and reviewed selected case files.

INSPECTION RESULTS

Corrective Action Program Assessment	71152—Problem Identification and Resolution

Corrective Action Program: Based on the samples reviewed, the team determined that the staff's performance in each of these areas adequately supported nuclear safety.

Effectiveness of Problem Identification: Overall, the team found that the licensee was identifying and documenting problems at an appropriately low threshold that supported nuclear safety. On average, the licensee was identifying and documenting over 1,200 condition reports (adverse and non-adverse) per month.

However, the team identified that there was still some inconsistency on how repeat examples of equipment failures were documented. System engineers believed that an additional example of a failure would be documented on a new condition report as they occurred in order to support tracking and trending. The team found that in the case of the electrical auxiliary building battery room heater issue, not all examples of failure of the temperature controller were documented on a new condition report, but were sometimes recorded on the existing open condition report. Interviews with operations personnel confirmed that this was considered an acceptable practice. The team found that this could have led to a delay in initiating effective evaluations of the cause of the failures.

Effectiveness of Prioritization and Evaluation of Issues: Overall, the team found that the licensee was appropriately prioritizing and evaluating issues to support nuclear safety. Of the samples reviewed, the team found that the licensee correctly characterized each condition report as to whether it represented a condition adverse to quality, and then, prioritized the evaluation and corrective actions in accordance with program guidance.

However, while not a procedural or regulatory requirement, the team identified examples where the operability determinations did not document a deterministic basis for the reasonable expectation of continued operability. In one condition report, the operability determination was based upon the system engineer's opinion that the surface corrosion had no impact on structural integrity of the screens (CR 18-9335), while in another the operability determination stated that the approximately 4-5 square feet of insulation missing from the control room envelope was negligible and had no effect on operability (CR 18-9377). The team found that ultimately these were correct operability determinations.

Effectiveness of Corrective Actions: Overall, the team concluded that the licensee's corrective actions supported nuclear safety. However, the team noted a trend to extend due dates and completion of corrective actions and evaluations without adequate basis which may warrant additional management oversight and attention.

Corrective Action Program Assessment: Based on the samples reviewed, the team determined the licensee's corrective action program complied with regulatory requirements and self-imposed standards, and the licensee's implementation of the corrective action program adequately supported nuclear safety. The team found that management's oversight of the corrective action program process was effective.

Operating Experience, Self-Assessments, and Audits Assessment	71152—Problem Identification and Resolution
Operating Experience, Self-Assessments, and Audits: Based on the samples reviewed, the team determined that the staff's performance in each of these areas adequately supported nuclear safety.	

Safety-Conscious Work Environment Assessment	71152—Problem Identification and Resolution
Safety-Conscious Work Environment: The team found no evidence of challenges to the organization's safety-conscious work environment. Employees appeared willing to raise nuclear safety concerns through at least one of the several means available. However, the team found evidence within one work organization, that while the individuals indicated they were satisfied with the licensee's response to nuclear safety concerns, they did not feel that non-nuclear safety issues and industrial safety issues received the same level of attention, and that the lack of response to these types of issues may be influencing their willingness to raise similar issues. The team confirmed that this group felt free to raise any type of safety concern without retaliation. The team also confirmed that none of the other work organizations interviewed held similar opinions regarding the licensee's response to non-nuclear safety or industrial safety issues. The team also found that licensee management continued to address work environment issues within the security organization such that security personnel felt comfortable raising nuclear and non-nuclear safety concerns without the fear of retaliation, and with a greater degree of confidence that their concerns would be addressed.	

EXIT MEETINGS AND DEBRIEFS

On August 23, 2018, the NRC team leader presented the biennial problem identification and resolution inspection results to Mr. G. T. Powell and other members of the licensee staff. The inspectors confirmed that no proprietary information was documented in this report and that any sensitive material was appropriately controlled to protect from public disclosure.

DOCUMENTS REVIEWED

71152 – Problem Identification and Resolution

Condition Reports

14-13126	15-21592	15-24053	15-26657	15-6150
16-10169	16-11891	16-11891	16-11908	16-13825
16-14557	16-14611	16-6496	16-6496	17-11857
17-12897	17-13155	17-1370	17-13726	17-14510
17-16376	17-1661	17-17236	17-1741	17-18175
17-19255	17-19731	17-20254	17-20262	17-20263
17-20423	17-21547	17-21699	17-22662	17-22934
17-22934	17-23022	17-23609	17-23980	17-24015
17-24596	17-36662	18-0911	18-1002	18-1931
18-2587	18-3169	18-3343	18-3374	18-3505
18-3518	18-3533	18-3533	18-3608	18-3615
18-387	18-4098	18-4383	18-4627	18-4627
18-4872	18-5103	18-5997	18-6210	18-6213
18-632	18-6998	18-7114	18-7183	18-7184
18-7185	18-7186	18-7186	18-7450	18-7536
18-9167	18-9335	18-9374	18-9377	18-9404
18-9405	18-9425	18-9452	18-959	18-9634
18-9851	18-9886	18-9943	18-9970	

WANs (Work Orders)

559301	571449	549077	579810	580277	575793	559301

Facilities Work Orders

FS18-00580	FS18-02029	FS18-02204	FS18-02262	FS18-02373
FS18-02379	FS18-03008	FS18-03141	FS18-03144	FS18-03172

Procedures Number	Title	Revision
	STP Reporting Manual	17
0PGP03-ZM-0025	Post-Maintenance Testing Program	15, 16
0PGP03-ZX-0002	Condition Reporting Process	52
0PGP03-ZX-0002A	CAQ Resolution Process	11
0PGP03-ZX-0003	Station Self-Assessment Program	14
0PGP03-ZX-0008	Condition Not Adverse to Quality (CNAQ) Resolution Process	
0PGP03-ZX-0013	Operating Experience Program	14

Procedures Number	Title	Revision
0PGP03-ZX-0013A	Processing Industry Operating Experience	0
0PGP03-ZX-0013B	Site OE and INPO Reporting Process	0
OPOP01-ZO-0011	Operability, Functionality, and Reportability Guidance	11
OPOP03-ZO-9900	Operability Determinations and Functionality Assessments Program	8
OPOP03-ZO-9900A	Operability Determinations and Functionality Assessments Implementation	5
CAP-0002	Cause Analysis Guideline	5
CAP-0003	Condition Report Screening	1
OGP03-ZM-0028	Erection and Use of Scaffolding	22
0PG03-ZA-0140	Plant Status Control	9
0PGP03-ZC-0004	M&TE Control Program	13
0PGP03-ZO-0011	Operability, Functionality, and Reportability Guidance	10
0PGP03-ZX-0002	Condition Reporting Process	52
0PGP03-Zx-0003	Self-Assessments	14
0PGPO1-ZA-0049	Condition Report Operations evaluation program	7
0PGPO3-ZO-9900	Operability Determinations and Functionality Assessment	8
0PGPO3-ZO-9900A	Op. Determination Implementation	5
0PGPO3-ZX-0002A	CAQ Resolution Process	10
0PGPO3-ZX-0002B	Station Cause Analysis Program	9
0PGPO3-ZX-0016	Trending Process Procedure	4

Procedures Number	Title	Revision
0PGPO4-ZA-0002	Condition Report Engineering Evaluation	25
OPOPO4-ZO-0002	Natural or Destructive Phenomena Guidelines	54

Drawing Number	Title	Revision
3A01S10003	Seismic Separation Control	8

Miscellaneous Documents Number	Title	Revision or Date
	Management Review Meeting	May 2018
DCN 14-22645-1	Seismic Separation Control Drawing	33
STP Calculation CC-9913	Seismic Separation Acceptance Criteria	October 1989
4Z519ZS1040	Thermal Growth Criteria	6
	U-1 RIS- 05-20 Report	March 2018
	U-1 RIS- 05-20 Report	June 2018
	U-2 RIS- 05-20 Report	March 2018
	U-2 RIS- 05-20 Report	June 2018
	MPIC Meeting Minutes	January 2018
	MPIC Meeting Minutes	February 2018
	ECW System Health Report	December 2017
	5 year Table of EW issues	August 2018
95-14544-2	Evaluate Floor Drain Under Fire Door 090	November 1996

Information Request

Biennial Problem Identification and Resolution Inspection at South Texas Project
January 23, 2018

Inspection Report: **2018007**
On-site Inspection Dates: **Weeks of August 6 and August 20, 2018**
Assessment Period: **August 26, 2016, through August 23, 2018**

This inspection will cover the period from August 26, 2016, through the end of the onsite inspection. The scope of this request is information associated with activities during this inspection period unless otherwise specified. To the extent possible, the requested information should be provided electronically in word-searchable Adobe PDF (preferred) or Microsoft Office format. Any sensitive information should be provided in hard copy during the team's first week on site; do not provide any sensitive or proprietary information electronically.

Lists of documents ("summary lists") should be provided in Microsoft Excel or a similar sortable format. Please be prepared to provide any significant updates to this information during the team's first week of on-site inspection. As used in this request, "corrective action documents" refers to condition reports, notifications, action requests, cause evaluations, and/or other similar documents.

Please provide the following information no later than July 16, 2018:

1. Document Lists
   Note: For these summary lists, please include the document/reference number, the document title, initiation date, current status, and long-text description of the issue.

   a. Summary list of all corrective action documents related to significant conditions adverse to quality that were opened, closed, or evaluated during the period

   b. Summary list of all corrective action documents related to conditions adverse to quality that were opened or closed during the period

   c. Summary lists of all corrective action documents that were upgraded or downgraded in priority/significance during the period (these may be limited to those downgraded from, or upgraded to, apparent-cause level or higher)

   d. Summary list of all corrective action documents initiated during the period that "roll up" multiple similar or related issues, or that identify a trend

   e. Summary lists of operator workarounds, operator burdens, temporary modifications, and control room deficiencies (1) currently open and (2) that were evaluated and/or closed during the period

   f. Summary list of safety system deficiencies that required prompt operability determinations (or other engineering evaluations) to provide reasonable assurance of operability

g. Summary list of plant safety issues raised or addressed by the Employee Concerns Program (or equivalent) (sensitive information should be made available during the team's first week on site—do not provide electronically)

2. Full Documents with Attachments

Note: Please include a summary list or index if document titles are not descriptive.

a. Root Cause Evaluations completed during the period; include a list of any planned or in progress

b. Apparent Cause Evaluations completed during the period

c. Quality Assurance audits performed during the period

d. Audits/surveillances performed during the period on the Corrective Action Program, of individual corrective actions, or of cause evaluations

e. Functional area self-assessments and non-NRC third-party assessments (e.g., peer assessments performed as part of routine or focused station self- and independent assessment activities; do not include INPO assessments) that were performed or completed during the period; include a list of those that are currently in progress

f. Any assessments of the safety-conscious work environment

g. Corrective action documents generated during the period associated with the following:

   i. NRC findings and/or violations

   ii. Licensee Event Reports issued by South Texas Project

h. Corrective action documents generated for the following, if they were determined to be applicable to South Texas Project (for those that were evaluated but determined not to be applicable, provide a summary list):

   i. NRC Information Notices, Bulletins, and Generic Letters issued or evaluated during the period

   ii. Part 21 reports issued or evaluated during the period

   iii. Vendor safety information letters (or equivalent) issued or evaluated during the period

   iv. Other external events and/or Operating Experience evaluated for applicability during the period

Corrective action documents generated for the following:

v. Emergency planning drills and tabletop exercises performed during the period

vi. Maintenance preventable functional failures that occurred or were evaluated during the period

vii. Action items generated or addressed by offsite review committees during the period

viii. Findings, violations, and comments/observations documented in the 2015 NRC PI&R inspection report

3. Logs and Reports

a. Corrective action performance trending/tracking information generated during the period and broken down by functional organization (if this information is fully included in item 3.b, it need not be provided separately)

b. Current system health reports, Management Review Meeting package, or similar information; provide past reports as necessary to include ≥12 months of metric/trending data

c. Radiation protection event logs during the period

d. Security event logs and security incidents during the period (sensitive information should be made available during the team's first week on site—do not provide electronically)

e. List of training deficiencies, requests for training improvements, and simulator deficiencies for the period

Note: For items 3.c and 3.d, if there is no log or report maintained separate from the corrective action program, please provide a summary list of corrective action program items for the category described.

4. Procedures

Note: For these procedures, please include all revisions that were in effect at any time during the period.

a. Corrective action program procedures, to include initiation and evaluation procedures, operability determination procedures, apparent and root cause evaluation/determination procedures, and any other procedures that implement the corrective action program

b. Quality Assurance program procedures (specific audit procedures are not necessary)

c. Employee Concerns Program (or equivalent) procedures

d. Procedures that implement/maintain a Safety-Conscious Work Environment

e. Conduct of Operations procedure (or equivalent) and any other procedures or policies governing control room conduct, operator burdens and workarounds, etc.

f. Operating Experience (OE) program procedures and any other procedures or guidance documents that describe the site's use of OE information

5. Other

a. List of risk-significant components and systems, ranked by risk worth

b. List of structures, systems, and components and/or functions that were in maintenance rule (a)(1) status at any time during the inspection period; include dates and results of expert panel reviews and dates of status changes

c. Organization charts for plant staff and long-term/permanent contractors

d. Electronic copies of the UFSAR (or equivalent), technical specifications, and technical specification bases, if available

e. Table showing the number of corrective action documents (or equivalent) initiated during each month of the inspection period, by screened significance

f. For each day the team is on site,

i. Planned work/maintenance schedule for the station

ii. Schedule of management or corrective action review meetings (e.g. operations focus meetings, condition report screening meetings, CARBs, MRMs, challenge meetings for cause evaluations, etc.)

iii. Agendas for these meetings

Note: The items listed in 5.f may be provided on a weekly or daily basis after the team arrives on site.

All requested documents should be provided electronically where possible. Regardless of whether they are uploaded to an internet-based file library (e.g., Certrec's IMS), please provide copies on CD or DVD.

One copy of the CD or DVD should be provided to the resident inspector at South Texas Project; and one additional copy should be provided to the team lead, to arrive no later than July 16, 2018:

U.S. NRC Region IV
Attn: Harry Freeman
1600 E. Lamar
Arlington, TX 76011

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION – NRC BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000498/2018007 AND 0500499/2018007 – OCTOBER 4, 2018

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ADAMS ACCESSION NUMBER: ML18277A295
☑ SUNSI Review: ADAMS: ☐ Non-Publicly Available ☑ Non-Sensitive Keyword: NRC-002
By: HAF ☑ Yes ☐ No ☑ Publicly Available ☐ Sensitive

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