



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

December 14, 2020

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

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 – BIENNIAL
PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION
REPORT 05000498/2020010 AND 05000499/2020010

Dear Mr. Powell:

On November 5, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed a problem identification and resolution inspection at your South Texas Project, Units 1 and 2 and discussed the results of this inspection with yourself 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.

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

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 Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Ami N. Agrawal, Team Leader
Inspection Programs & Assessment Team
Division of Reactor Safety

Docket Nos. 05000498 and 05000499
License Nos. NPF-76 and NPF-80

Enclosure:
As stated

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SOUTH TEXAS PROJECT, UNITS 1 AND 2 – BIENNIAL PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000498/2020010 AND 05000499/2020010 –
DECEMBER 14, 2020

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Numbers: 05000498 and 05000499

License Numbers: NPF-76 and NPF-80

Report Numbers: 05000498/2020010 and 05000499/2020010

Enterprise Identifier: I-2020-010-0001

Licensee: STP Nuclear Operating Company

Facility: South Texas Project, Units 1 and 2

Location: Wadsworth, TX

Inspection Dates: October 21, 2020 to November 5, 2020

Inspectors: R. Azua, Senior Reactor Inspector
A. Sanchez, Senior Project Engineer
J. Braisted, Reactor Inspector
L. Flores, Reactor Inspector
R. Grover, Observer

Approved By: Ami N. Agrawal, Team Leader
Inspection Programs & 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, 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.

List of Findings and Violations

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

Additional Tracking Items

None.

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 (IMC) 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.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), inspectors were directed to begin telework. In addition, regional baseline inspections were evaluated to determine if all or portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

OTHER ACTIVITIES – BASELINE

71152B - Problem Identification and Resolution

Biennial Team Inspection (IP Section 02.04) (1 Sample)

- (1) 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.
 - **Corrective Action Program Effectiveness:** The inspectors assessed the corrective action program's effectiveness in identifying, prioritizing, evaluating, and correcting problems. The inspectors sampled approximately 170 condition reports as well as their associated Root Cause and Apparent Cause Evaluations. The team also conducted a 5-year review of the plant's essential cooling water systems and associated chillers.
 - **Operating Experience, Self-Assessments, and Audits:** The inspectors assessed the effectiveness of the station's processes for use of operating experience, audits, and self-assessments.
 - **Safety Conscious Work Environment:** The inspectors assessed the effectiveness of the station's programs to establish and maintain a safety-conscious work environment.

INSPECTION RESULTS

Assessment	71152B
<p><u>Effectiveness of Problem Identification:</u> Based on the samples reviewed, the team determined that the licensee's performance in this area adequately supported nuclear safety. Overall, the team found that the licensee was identifying and documenting problems at an appropriately low threshold that supported nuclear safety.</p> <p><u>Effectiveness of Prioritization and Evaluation of Issues:</u> 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.</p> <p><u>Effectiveness of Corrective Actions:</u> Overall, the team concluded that the licensee's corrective actions supported nuclear safety. Specifically, the South Texas Project developed effective corrective actions for the problems evaluated in the corrective action program and generally implemented these corrective actions in a timely manner commensurate with their safety significance.</p> <ul style="list-style-type: none"> As part of this inspection, the team selected the plant's essential cooling water systems and associated chillers for a focused review within the corrective action program. For these systems, the team performed sample selections of condition reports, looking at the adequacy of the licensee's evaluation process for determining which items are placed in the corrective action process, and the corrective actions taken. The team also reviewed the licensee's use of operational experience and the Part 21 process' with respect to this system. As a result of the off-site nature of this inspection, due to COVID-19 restrictions at the time of the inspection, the team was not able to walk down portions of these systems. However, the team did not identify any concerns with this system. <p><u>Corrective Action Program Assessment:</u> 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.</p>	

Assessment	71152B
<p><u>Operating Experience:</u> The team reviewed a variety of sources of operating experience 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 (EPRI). The team determined that the South Texas Project, is adequately screening and addressing issues identified through operational experience that apply to the station and that this information is evaluated in a timely manner once it is received.</p> <p><u>Self-Assessments and Audit Assessment:</u> The team reviewed a sample of the licensee's departmental self-assessments and audits to assess whether they regularly identified performance trends and effectively addressed them. The team also reviewed audit reports to assess the effectiveness of assessments in specific areas. Overall, the team concluded that the licensee had an adequate departmental self-assessment and audit process. In the area</p>	

of trend analysis, the team did identify that the licensee had not taken full advantage of established processes to perform trend analyses in each department twice a year. The licensee indicated that they presently perform a computer-generated analysis using an algorithm to identify trends plant-wide, and that they are looking into performing future departmental trends using the same process.

Assessment	71152B
<p><u>Safety-Conscious Work Environment:</u> The team interviewed ten individuals. The purpose of these interviews was: (1) to evaluate the willingness of the licensee staff to raise nuclear safety issues, either by initiating a condition report or by another method; (2) to evaluate the perceived effectiveness of the corrective action program at resolving identified problems; and (3) to evaluate the licensee's safety-conscious work environment (SCWE). The focus group participants were from the Security organization. Due to the challenges brought on by the COVID-19 pandemic, and the South Texas Project's performance in this area prior to this inspection, the NRC chose to limit the number of personnel interviewed. Overall, the South Texas Project has an adequate Safety Conscious Work Environment.</p> <p><u>Willingness to Raise Nuclear Safety Issues:</u> In the assessed focus group, the team found no evidence of challenges to SCWE. Individuals in this group expressed a willingness to raise nuclear safety concerns and other issues through at least one of the several means available.</p> <p>Overall, the team concluded that the South Texas Project maintained a healthy SCWE.</p> <p><u>Employee Concerns Program:</u> The team looked at the South Texas Project's Employee Concerns Program (ECP). The team interviewed the ECP manager and discussed her cases. The team reviewed the ECP's investigative packages. Overall, the team did not identify any concerns with the program.</p>	

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On November 5, 2020, the inspectors presented the biennial problem identification and resolution inspection results to Mr G. Powell, President and CEO, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152B	Corrective Action Documents	Condition Reports (CRs)	04-9487, 06-8526, 07-8567, 10-1209, 10-21452, 12-23776, 15-25511, 16-3594, 16-3641, 16-5305, 16-11257, 16-11346, 17-691, 17-17659, 17-22801, 18-1488, 18-2396, 18-3296, 18-3967, 18-4094, 18-4480, 18-5434, 18-6597, 18-6871, 18-7183, 18-7184, 18-7185, 18-7186, 18-7193, 18-7195, 18-7209, 18-7842, 18-8061, 18-8454, 18-8858, 18-9456, 18-9599, 18-9846, 18-10113, 18-10118, 18-10183, 18-10326, 18-11154, 18-11155, 18-12152, 18-13551, 18-13635, 18-13638, 18-13993, 18-14266, 18-14369, 18-14473, 18-14474, 18-14475, 18-14476, 18-14937, 18-15029, 19-241, 19-799, 19-876, 19-957, 19-1009, 19-1101, 19-1225, 19-1916, 19-1954, 19-1966, 19-2023, 19-2357, 19-2526, 19-2725, 19-2836, 19-3431, 19-3611, 19-4076, 19-4187, 19-4323, 19-4367, 19-4368, 19-4472, 19-4561, 19-4623, 19-4745, 19-5470, 19-5569, 19-5666, 19-5669, 19-5670, 19-5671, 19-5674, 19-5680, 19-5689, 19-5693, 19-5694, 19-5842, 19-6437, 19-6440, 19-7019, 19-7043, 19-7164, 19-7441, 19-7486, 19-7535, 19-8088, 19-8257, 19-8507, 19-8510, 19-9050, 19-9764, 19-9800, 19-10133, 19-10210, 19-10223, 19-10289, 19-10487, 19-10643, 19-11414, 19-11467, 19-12074, 19-12135, 19-12372, 19-12401, 20-705, 20-849, 20-917, 20-935, 20-1017, 20-1205, 20-1361, 20-1381, 20-1474, 20-1490, 20-1507, 20-1589, 20-1643, 20-1828, 20-1939, 20-2174, 20-2861, 20-3665, 20-3814, 20-3815, 20-3933, 20-4910, 20-5103, 20-5149, 20-5798, 20-6283, 20-6310, 20-6765, 20-6797, 20-7052, 20-7429, 20-7524, 20-7563, 20-7564, 20-7714, 20-8188, 20-8590, 20-9405, 20-9748, 20-9762, 20-10932, 20-11113, 20-11265	
	Miscellaneous		Quality Periodic Report	02/04/2019
			Quality Periodic Report	07/24/2019
			Quality Periodic Report	01/29/2020
			Quality Periodic Report	08/17/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Unit 1 Operator Burden Working Report	11/04/2020
			Unit 2 Operator Burden Working Report	11/4/2020
			2019 Maintenance Observations	
			2020 Maintenance Observations	
			Executive Oversight Board Report of Site Visit	02/13/2020
			STP Executive Oversight Board Report	11/2018
			STP Executive Oversight Board Report	03/2019
			STP Executive Oversight Board Report	02/2020
			Executive Oversight Board Report of Site Visit	09/19/2019
		18-0-107397	Audit of CAP for Plant Operations	
		19-0-107556	Audit of CAP for Plant Operations	
		20-0-108142	Audit of CAP for Plant Operations	
		2019-06	CAP Health Program	06/2019
		2019-12	CAP Health Program	12/2019
		2020-04	CAP Health Program	04/2020
		2020-08	CAP Health Program	08/2020
		PRA-19-009	Risk Assessment to Provide Risk Information to Support LER 2-19-001 as Required by Procedure 0PGP03-ZX-0002B	0
	Procedures	0PGP03-HU-0001	Human Performance (HU) Program	12
		0PGP03-IP-0001	Integrated Performance Improvement Program	8
		0PGP03-ZA-0090	Work Process Program	42
		0PGP03-ZM-0002	Preventive Maintenance Program	40
		0PGP03-ZO-0055	Protected Components	14
		0PGP03-ZO-ECO1A	Equipment Clearance Order Instructions	31
		0PGP03-ZX-0002	Condition Report Process	53
		0PGP03-ZX-0002A	CAQ Resolution Process	13
		0PGP03-ZX-0002B	Station Cause Analysis Program	12

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		0PGP03-ZX-0003	Station Self-Assessment Program	15
		0PGP03-ZX-0003	Station Self-Assessment Program	15
		0PGP03-ZX-0008	Condition Not Adverse to Quality (CNAQ) Resolution Process	2
		0PGP03-ZX-0016	Trending Process Procedure	5
		0PGP04-ZA-0002	Condition Report Engineering Evaluation	27
		0POP01-ZA-0049	Condition Report Operations Evaluation Program	10
		0POP01-ZO-0011	Operability, Functionality, and Reportability Guidance	14
		0POP01-ZO-0014	Operability, Functionality & Reportability Guidance	12
		0PQP02-ZA-0003	Quality Surveillance and Performance Monitoring	12
		0PSP10-RC-0002	Core Exit Thermocouple or Resistance Temperature Detector Cross Calibration	10, 25, 26
		0PSP11-XC-0004	LLRT Penetration: M-91 Auxiliary Airlock Door Seals	17
		CAP-002	Causal Analysis Guideine	5
		CAP-003	Condition Report Screening	4
		COM-0001	Conduct of Maintenance	19
		Conduct of Operations Chapter 1	Operations Organization and Responsibilities	30
		Conduct of Operations Chapter 11	Operations Departmental Business Practices	20
		Conduct of Operations Chapter 2	Shift Operating Practices	80
		Conduct of Operations Chapter 3	Communications	13
		Conduct of Operations Chapter 7	Performance Monitoring and Self Assessment	31

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SLG-CPI1	Management Performance Improvement Committee Activities	10
		WCG-0002	Work Management Scheduling	43
		WCG-0002	Work Management Scheduling	43
		WCG-0003	Planner's Guide	40
	Self-Assessments	19-05	Maintenance/Work Control Quality Audit	06/10/2019
		19-10	Accredited Training Audit	
		CR 18-3296	Maintenance and Technical Training Programs	2
		CR 19-7019	Mid-Cycle Self-Assessment Report	07/2019
		CR 19-7164	Maintenance and Technical Training Training Programs	08/26/2019
		CR 19-8088	Maintenance Fundamentals and Technical Skills	08/19/2019