



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

March 24, 2023

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

SUBJECT: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION – FIRE
PROTECTION INSPECTION REPORT 05000498/2023010 AND
05000499/2023010

Dear G. T. Powell:

On February 16, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at South Texas Project Electric Generating Station. On February 16, 2023, the NRC inspectors discussed the results of this inspection with K. Harshaw and other members of your staff. The results of this inspection are documented in the enclosed report.

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,

A handwritten signature in black ink, appearing to read "Nicholas H. Taylor".

Signed by Taylor, Nicholas
on 03/24/23

Nicholas H. Taylor, Chief
Engineering Branch 2
Division of Operating Reactor Safety

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

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION - FIRE PROTECTION
 INSPECTION REPORT 05000498/2023010 AND 05000499/2023010- DATED
 MARCH 24, 2023

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DOCUMENT NAME: SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION – FIRE
 PROTECTION INSPECTION REPORT 05000498/2023010 AND 05000499/2023010

ADAMS ACCESSION NUMBER: **ML23074A192**

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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: 05000498/2023010 and 05000499/2023010

Enterprise Identifier: I-2023-010-0007

Licensee: STP Nuclear Operating Company

Facility: South Texas Project Electric Generating Station

Location: Wadsworth, TX

Inspection Dates: January 30, 2023 to February 17, 2023

Inspectors: M. Chisolm, Reactor Inspector
S. Makor, Reactor Inspector
J. Drake, Senior Reactor Inspector

Approved By: Nicholas H. Taylor, Chief
Engineering Branch 2
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a fire protection inspection at South Texas Project Electric Generating Station, 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.

REACTOR SAFETY

71111.21N.05 - Fire Protection Team Inspection (FPTI)

Structures, Systems, and Components (SSCs) Credited for Fire Prevention, Detection, Suppression, or Post-Fire Safe Shutdown Review (IP Section 03.01) (3 Samples)

The inspectors verified that components and/or systems will function as required to support the credited functions stated for each sample. Additional inspection considerations are located in the fire hazards analysis (FHA) or safe shutdown analysis (SSA).

- (1) Cable spreading room, train A
- (2) Auxiliary shutdown area
- (3) Relay cabinet area of control room

Fire Protection Program Administrative Controls (IP Section 03.02) (2 Samples)

The inspectors verified that the selected controls are implemented in accordance with the licensee's current licensing basis and have adequate implementing procedures.

- (1) Fire brigade training program and qualifications Observed a fire brigade drill on February 28, 2023
- (2) Administrative controls for control of fire impairments and compensatory measures

Fire Protection Program Changes/Modifications (IP Section 03.03) (3 Samples)

The inspectors evaluated the licensee's procedures controlling modifications and procedure revisions for adequacy in reviewing potential impacts to the fire protection program.

- (1) Procedure revisions to Procedure 0PTP03-FP-0103, Fire Protection System Flush, revision 11
- (2) Condition report engineering evaluation (CREE) 21-12326-4, supplement 1, deviation to NFPA 20-1974/1976 and NFPA 22-1976 regarding the requirement of frost-proof casings for suction piping for the fire water storage tanks within South Texas Project Fire Hazard Analysis Report
- (3) Procedure revisions to procedure 0PGP03-ZF-0018, Fire Protection System Functionality Requirements, revision 23

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On February 16, 2023, the inspectors presented the fire protection team inspection results to K. Harshaw, Executive Vice President and Chief Nuclear Officer and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Corrective Action Documents	Condition Reports	2016-1381, 2018-1230, 2020-1243, 2020-2006, 2020-6916, 2020-7172, 2020-10868, 2020-10874, 2020-10892, 2020-10933, 2020-10939, 2020-10940, 20-10945, 2020-11608, 2021-5234, 2021-12326, 2022-477, 2022-3169, 2022-5568, 2022-5730, 2022-6644, 2021-9005, 2022-9108, 2022-9644, 2022-10077, 2022-10098, 2022-10513, 2022-10748, 2022-10966, 2022-11450, 2022-12749, 2023-288, 2023-786, 2023-592, 2023-1133, 2023-12326	
71111.21N.05	Corrective Action Documents Resulting from Inspection	Condition Reports	2023-413, 2023-414, 2023-427, 2023-1089, 2023-1090, 2023-1094, 2023-1098, 2023-1100, 2023-1102, 2023-1103, 2023-1136, 2023-1151, 2023-1153, 2023-1158, 2023-1161, 2023-1162, 2023-1198, 2023-1204, 2023-1226, 2023-1230, 2023-1231, 2023-1297, 2023-1305, 2023-1310, 2023-1326, 2023-1328, 2023-1329, 2023-1330, 2023-1332, 2023-1333, 2023-1334, 2023-1335, 2023-1337, 2023-1338, 2023-1339, 2023-1341, 2023-1343, 2023-1346, 2023-1349, 2023-1350, 2023-1494, 2023-1646, 2023-1661	
71111.21N.05	Engineering Evaluations	Condition Report Engineering Evaluation 2017-24176	Gap Analysis Of OPGP03-ZF-0018 And DRAFT Revision 5 NUREG-0452	08/14/2018
71111.21N.05	Engineering Evaluations	Condition Report Engineering Evaluation 2018-2201	Change To Compensatory Actions Required For Fire detector Functionality Exceptions	02/19/2019
71111.21N.05	Engineering Evaluations	Condition Report Engineering Evaluation 21-12326-4 Supp. 2	STP is proposing a deviation from NFPA 20-1974 (Diesel Fire Pump 1), NFPA 20-1976 (Diesel Fire Pump 2 &3), and NFPA 22-1976	05/12/2022
71111.21N.05	Engineering Evaluations	Condition Report Engineering	Seismic evaluation of tables in relay rooms	02/11/2016

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		Evaluation 34303270		
71111.21N.05	Miscellaneous		South Texas Project Nuclear Operating Company Active Fire Protection Impairment Permits	01/30/2023
71111.21N.05	Miscellaneous	FP-0-17000180	Fire Protection System Flush	04/26/2022
71111.21N.05	Miscellaneous	NOC-AE-21003792	Attachment 1, STP Fire Hazards Analysis Report Amendment 26 Summary of Changes	03/30/2021
71111.21N.05	Miscellaneous	PRA-NB-03	South Texas Project Electric Generating Station Probabilistic Risk Assessment Initiating Events	10
71111.21N.05	Miscellaneous	PRA-NB-23	South Texas Project Electric Generating Station Probabilistic Risk Assessment Fire Protection System	10
71111.21N.05	Procedures	0PGP03-ZA-0514	Controlled System or Barrier Impairment	20
71111.21N.05	Procedures	0PGP03-ZF-0016	Fire Protection Alternative Compensatory Measures	0
71111.21N.05	Procedures	0PGP03-ZO-0057	Operator Time Critical Action Program	5
71111.21N.05	Procedures	0PGP05-ZN-0004	Change to Licensing Basis Documents and Amendments to the Operating License	31
71111.21N.05	Procedures	0POP02-FA-0001	Fire Detection System	16
71111.21N.05	Procedures	0POP04-ZO-0001	Control Room Evacuation	50
71111.21N.05	Procedures	0POP04-ZO-0008	Fire/Explosion	30
71111.21N.05	Procedures	0POP11-CW-0001	Condenser Waterbox Online Isolation and Restoration	Rev 30
71111.21N.05	Procedures	0PTP03-FP-0103	Fire Protection System Flush	11
71111.21N.05	Procedures	0PTP03-FP-0120	Fire Hose Hydrostatic Test	13
71111.21N.05	Procedures	OPGP04-ZA-0328	Engineering and Vendor Document Processing	16
71111.21N.05	Work Orders	583296	WAN# 682, Diesel Fire Pump tripped on water temp above safe level	01/26/2023
71111.21N.05	Work Orders	PMWO WAN 617838	Sequential start of diesel fire pumps 1,2,3	02/04/2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Work Orders	PMWO WAN 624865	Sequential start of diesel fire pumps 1,2,3	09/17/2021