



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

February 7, 2019  
NOC-AE-19003624  
10 CFR 50.55a

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

South Texas Project  
Unit 1  
Docket No. STN 50-498  
Inservice Inspection Summary Report – 1RE21

Attached is the South Texas Project Electric Generating Station Unit 1 summary report for inservice inspections performed prior to and during scheduled refueling outage 1RE21 completed in November 2018. This summary report satisfies the reporting requirements of American Society of Mechanical Engineers ASME Code Section XI, Article IWA-6230.

There are no commitments in this letter.

If there are any questions regarding this report, please contact Wendy Brost at (361) 972-8516 or me at (361) 972-7806.

A handwritten signature in black ink that reads "C. H. Georgeson".

Christopher Georgeson  
Manager, Design Engineering

web

Attachment: Summary Report for 1RE21 Inservice Inspection of Unit 1 South Texas Project  
Electric Generating Station

STI: 34799132

cc:  
(paper copy)

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**SUMMARY REPORT**  
**For**  
**1RE21**  
**INSERVICE INSPECTION**  
**Of**  
**UNIT 1**  
**SOUTH TEXAS PROJECT**  
**ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

04/29/17 - 11/11/18

COVER SHEET

1RE21 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

P.O. BOX 289

WADSWORTH, TEXAS 77483

USNRC DOCKET NO: 50-498

OPERATING LICENSE NO: NPF-78

COMMERCIAL OPERATION DATE: AUGUST 25, 1988

Prepared by: *Eric Lantz* Date 4 FEB 2019  
Eric Lantz, ISI Program Engineer

Reviewed by: *Brian Migl* Date 2/4/2019  
Brian Migl, Supervisor, /Testing Programs

## SCOPE

### **COMPONENT SUPPORTS, REPAIR/REPLACEMENT ACTIVITIES, SYSTEM PRESSURE TESTS, CONTAINMENT METAL LINER, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWD, IWF, IWL)**

The examinations summarized in this report were performed in accordance with the 2004 Edition of the ASME Code, Section XI that is applicable to the South Texas Project, Unit 1, third ten-year interval (09/25/2010-09/24/2020), third period (12/20/2017-09/24/2020). This report covers selected ASME Code Class 1, 2, and 3 Systems/Components. This report is documented in accordance with the requirements of ASME Section XI Code Case N-532-4.

Examinations and tests required by the Code are scheduled in accordance with "Inspection Program B" as defined in IWB-2412 for ASME Code Class 1 Systems/Components, IWC-2412 for ASME Code Class 2 Systems/Components, IWD-2412 for ASME Code Class 3 Systems/Components, and IWF-2410 component supports.

ASME Code Class 1 components were examined as prescribed by Table IWB-2500-1 and the applicable Examination Categories, which established the examination frequency at each refueling outage. The ASME Code Class 2 Systems/Components were examined in accordance with Table IWC-2500-1, Examination Categories. The ASME Code Class 3 Systems/Components were examined in accordance with Table IWD-2500-1, Examination Categories. Component Supports were examined in accordance with IWF- Table 2500-1, Examination Categories.

The Containment Tendon Test / End Anchorage and Adjacent Concrete Inspection was performed in accordance with the 2004 Edition of the ASME Code, Section XI, Subsection IWL as supplemented and modified by 10CFR50.55a(b)(2)(viii).

FORM OAR-1 OWNER'S ACTIVITY REPORT (Code Case N-532-4)

Report Number OAR-IRE21

Plant South Texas Project Electric Generating Station

Unit No. 1 Commercial service date August 25, 1988 Refueling outage no. IRE21  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup>; IWE - 3<sup>rd</sup>  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, other)

Current inspection period IWB, IWC, IWD, IWF - 3<sup>rd</sup>  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)

Edition and Addenda of Section XI applicable to the inspection plan 2004 Edition

Date and revision of inspection plan Revision 8 Effective date: 02/27/2018

Edition and Addenda of Section XI applicable to repairs/replacement activities, if different than the inspection plan N/A

Code Cases used: N-460, N-532-4, N-578-1, N-706-1, N-729-4, N-770-2, N-722-1

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of IRE21 conform to the requirements of Section XI.  
(Refueling outage number)

Signed ERIC LANTZ / Eric Lantz ISI Program Engineer Date: January 30, 2019  
(Owner or Owner's Designee, Title)

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and pressure Vessel Inspectors and the State or Province of Texas and employed by ABS Boiler & Marine Insurance Co. of Houston, Texas have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repairs/replacements activities and evaluation described this report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from the connected with this inspection.

R. A. Nix Commissions TX-756  
Inspector's Signature National Board, State, Province, and Endorsements  
Date FEB 4, 2019

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
REQUIRE EVALUATION FOR CONTINUED SERVICE

1RE21  
FALL 2018

Examination Category	Item Number	Item Description	Evaluation Description
N/A	N/A	N/A	N/A

NOTES:

1. No items with flaws or relevant conditions that required evaluation for continued service were found during 1RE21.

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE21  
FALL 2018

Code Class	Corrective Measure	Item Description	System	Description of Work	Date Completed	Repair/Replacement Plan Number
3	REPLACEMENT	VALVE	ESSENTIAL COOLING WATER	Replaced Valve A1EWFV6935	6/21/2018	1-15-063
3	REPLACEMENT	VALVE	CHILLED WATER	Replaced Valve 3V111TCH0590	6/20/2017	1-16-028
2	REPLACEMENT	VALVE	MAIN STEAM	Refurbish 30" Valve, Replaced stem Assembly.	11/2/2018	1-16-031
2	REPAIR	VALVE	MAIN STEAM	Refurbish 30" Valve. Replaced stem Assembly and Studs.	11/2/2018	1-16-032
3	REPLACEMENT	VALVE	STARTING AIR	Replaced Valve 3Q151XSD0007C	6/5/2017	1-17-012
3	REPLACEMENT	VALVE	ESSENTIAL COOLING WATER	Replaced Valve 3R281TEW0079	6/6/2017	1-17-016
3	REPAIR	VALVE	ESSENTIAL COOLING WATER	Refurbished and returned to warehouse.	10/4/2017	1-17-017
3	REPLACEMENT	VALVE	ESSENTIAL COOLING WATER	Replaced Valve B1EWFV6936	7/27/2017	1-17-018
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Removed Flange to use under WAN 556955.	7/13/2017	1-17-019
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced 4" pipe, ASME Welds.	10/26/2017	1-17-021
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced pipe and fitting. ASME Welds.	10/26/2017	1-17-022
3/NF	REPAIR	SUPPORTS	ESSENTIAL COOLING WATER	Reworked pipe supports. ASME Welds.	10/26/2017	1-17-023
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced pipe and fitting. ASME Welds.	10/26/2018	1-17-024
3/NF	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced pipe and fitting. ASME Welds.	10/26/2017	1-17-025
3"	REPAIR	FLANGES	ESSENTIAL COOLING WATER	OVERLAY FLANGES WITH ALUMINUM BRONZE.	3/22/2018	1-17-026

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE21  
FALL 2018

Code Class	Corrective Measure	Item Description	System	Description of Work	Date Completed	Repair/Replacement Plan Number
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced Piping, ASME Welds.	8/15/2018	1-17-028
3	REPLACEMENT	FASTENERS	CHILLED WATER	Replace Fasteners N1CHPSV9508	10/18/2017	1-17-032
3	REPLACEMENT	PIPING	COMPONENT COOLING	Replaced piping, ASME Welds.	8/15/2018	1-17-035
1	REPLACEMENT	SEAL PACKAGE	REACTOR COOLANT	Replaced CARTRIDGE SEAL PACKAGE.	11/1/2018	1-17-037
3	REPAIR	PIPING	ESSENTIAL COOLING WATER	ASME, Welds.	8/13/2018	1-18-003
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced piping/fittings.	8/13/2018	1-18-004
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced piping/fittings.	8/13/2018	1-18-005
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	Replaced piping/fittings.	8/13/2018	1-18-006
3	REPAIR	PIPING	ESSENTIAL COOLING WATER	Reworked pipe supports.	8/13/2018	1-18-007
2	REPLACEMENT	VALVE	MAIN STEAM	Replace Code part (Pilot Poppet).	11/2/2018	1-18-010
2	REPLACEMENT	VALVE	MAIN STEAM	Replace Code part (Pilot Poppet and stud/bolting).	11/1/2018	1-18-011
1	REPLACEMENT	VALVE	REACTOR COOLANT	Replaced 6" PZR Safety Valve N1RCPSV3450	10/25/2018	1-18-016
1	REPLACEMENT	VALVE	REACTOR COOLANT	Replaced 6" PZR Safety Valve N1RCFC0006A	10/25/2018	1-18-017
1	REPLACEMENT	VALVE	REACTOR COOLANT	Replaced 6" PZR Safety Valve N1RCPSV3452	10/25/2018	1-18-018

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE21  
FALL 2018

Code Class	Corrective Measure	Item Description	System	Description of Work	Date Completed	Repair/Replacement Plan Number
1	REPLACEMENT	BOLTING	REACTOR COOLANT	REPLACED RCP 1A SEAL HOUSING BOLTS WITH INCONEL STUDS.	10/17/2018	1-18-026
2	REPLACEMENT	VALVE	CHEMICAL & VOLUME CONTROL	Replace Code Parts (Trim Set, Plug, Seat, and Cage).	10/17/2018	1-18-035
2	REPLACEMENT	VALVE	MAIN STEAM	Replaced Code Part (Bonnet).	10/27/2018	1-18-037