



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

February 8, 2017  
NOC-AE-17003440  
10 CFR 50.55(a)

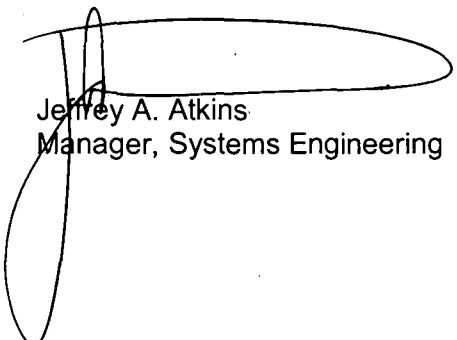
U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

South Texas Project  
Unit 2  
Docket No. STN 50-499  
Inservice Inspection Summary Report – 2RE18

Attached is the South Texas Project Electric Generating Station Unit 2 summary report for inservice inspections performed prior to and during scheduled refueling outage 2RE18 completed in November 2016. This summary report satisfies the reporting requirements of 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) 972-4997.



Jeffrey A. Atkins  
Manager, Systems Engineering

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Attachment: Summary Report for the 2RE18 Inservice Inspection of Unit 2 South Texas Project Electric Generating Station

AD47  
NRR

STI: 34438303

cc:  
(paper copy)

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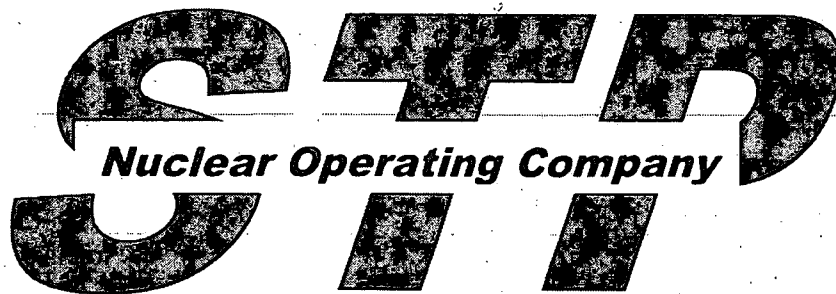
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**SUMMARY REPORT**  
**for the**  
**2RE18**  
**INSERVICE INSPECTION**  
**of**  
**UNIT 2**  
**SOUTH TEXAS PROJECT**  
**ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**  
October-November 2016

COVER SHEET

2RE18 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 2

P.O. BOX 289

WADSWORTH, TEXAS 77483

USNRC DOCKET NO: 50-499

OPERATING LICENSE NO: NPF-80

COMMERCIAL OPERATION DATE: June 19, 1989

Prepared by:   
J. Williams, ISI Program Engineer

Date February 01, 2017

Reviewed by:   
Craig Younger, Supervisor Engineering Testing/Programs

Date February 01, 2017

### SCOPE

#### **COMPONENT SUPPORTS (IWF), CONTAINMENT METAL LINER (IWE), REPAIR AND REPLACEMENT, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWD)**

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 2, third ten-year interval (10/19/2010-10/18/2020), second period (01/01/2014-12/18/2016). This report covers selected ASME Code Class 1, 2, and 3 Systems/Components and 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 and 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 establish the examination method and frequency. Likewise, the ASME Code Class 2, 3, and Component Supports were examined in accordance with Tables IWC-2500-1, IWD-2500-1, and IWF-2500-1, respectively.

The Containment Metal Liner examinations summarized in this report were performed in accordance with the 2004 Edition of the ASME Code, Section XI, which is applicable to the South Texas Project, Unit 2, second ten-year interval (09/09/2009-09/08/2019), third period (09/09/2016-09/08/2019). This report covers selected ASME Code Class CC liner & MC Components.

Examinations and tests required by the Code are scheduled in accordance with "Inspection Program B" as defined in IWE-2412 for ASME Code Class CC liner & MC Components. The Containment Metal Liner Components were examined in accordance with Table IWE-2500-1, and applicable Examination Categories.

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

Report Number OAR-2RE18

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE18  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup> ; IWE - 2<sup>nd</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 - 2<sup>nd</sup> ; IWE - 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

Date and revision of inspection plan April 04, 2014 / Revision 7, Supplement #2

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

Code Cases used: N-532-4, N578-1, N-722-1, N-770-1

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 2RE18 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer  
(Owner or Owner's Designee, Title)

Date Feb 1, 2017

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.

[Signature] Commissions TX-756  
Inspector's Signature National Board, State, Province, and Endorsements

Date FEB. 1, 2017

TABLE 1  
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
REQUIRED EVALUATION FOR CONTINUED SERVICE

2RE18  
October-November 2016

Examination Category	Item Number	Item Description	Evaluation Description
F-A	F1.20B	ISI INSPECTION OF FEEDWATER (FW) SYSTEM VARIABLE SPRING HANGER FW2031HL5001 (SUMMARY#222600) IDENTIFIED ONE OF TWO SPRINGS BROKEN. LINE NO. 18"FW-2031-AA2 LOCATED IVC TRAIN C/ ROOM 301 47' ELEVATION.	16-13429
F-A	F1.20B	CR 16-13505 ISI INSPECTION OF FEEDWATER (FW) SYSTEM VARIABLE SPRING HANGER FW2029HL5001 (ISI SUMMARY 222200) IDENTIFIED TWO OF TWO SPRINGS AS BROKEN. LINE NO. 18"FW-2029-AA2 LOCATED IN IVC/ A TRAIN / 47' ELEVATION.	COMPONENT IS PART OF EXPANDED ISI SCOPE REF. CR 16-13429
F-A	F1.20B	CR 16-13507 ISI INSPECTION OF FEEDWATER (FW) SYSTEM VARIABLE SPRING HANGER FW2032HL5001 (ISI SUMMARY 222800) IDENTIFIED ONE OF TWO SPRINGS BROKEN. LINE NO. 18"FW-2032-AA2 LOCATED IN IVC/ D TRAIN / 47' ELEVATION.	COMPONENT IS PART OF EXPANDED ISI SCOPE REF. CR 16-13429
F-A	F1.20B	CR 16-13429 ISI INSPECTION OF FEEDWATER (FW) SYSTEM VARIABLE SPRING HANGER FW2030HL5001 (ISI SUMMARY 222400), IDENTIFIED ONE OF TWO SPRINGS BROKEN. LINE NO. 18"FW-2030-AA2 LOCATED IN IVC/ B TRAIN / 47' ELEVATION	COMPONENT IS PART OF EXPANDED ISI SCOPE REF. CR 16-13429

NOTES:

1. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE18.

TABLE 2

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE  
2RE18  
October-November 2016

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	SYSTEM	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	BOLTING	CHILLED WATER	REPLACED CORRODED BOLTING FLANGE FASTENER ON LINES CH-2300-WA3 AND CH-2343-WA3	05/24/2015	2-12-064
3	REPLACEMENT	BOLTING	CHILLED WATER	REPLACED DAMAGE/CORRODED EVAPORATOR WATERBOX COVER 5/8" STUDS AND NUTS ON TRAIN C ESSENTIAL CHILLED WATER CHILLER UNIT 22C	05/24/2015	2-13-044
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED PIPING SPOOL EW-2230-A FROM FW0001 TO HFS0917 ON LINE 4"EW-2230WT3	11/24/2015	2-15-004
3	REPLACEMENT	VALVE	ESSENTIAL COOLING WATER	REPLACED TEW1006 ESSENTIAL CHILLER 22C ECW RETURN VALVE WITH A STAINLESS STEEL VALVE PER DCP IN PACKAGE 13-50-218	05/19/2015	2-15-008
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED AL-BZ PIPING DOWNSTREAM OF TRAIN 2C CCW HX OUTLET THROTTLE VALVE EW0101 WITH STAINLESS STEEL PER DCP IN PACKAGE 13-11301-4	07/20/2015	2-15-009
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED AL-BZ PIPING DOWNSTREAM OF TRAIN 2C CCW HX OUTLET THROTTLE VALVE EW0101 WITH STAINLESS STEEL PER DCP IN PACKAGE 13-11301-4	07/20/2015	2-15-015
3	REPLACEMENT	BOLTING	COMPONENT COOLING	REPLACED U-BOLT, DAMAGED DURING DISASSEMBLY PIPE SUPPORT CV2171HL5009:	07/20/2015	2-15-017
3	REPLACEMENT	SUPPORT	ESSENTIAL COOLING WATER	SHORTEN FIXED SWAY STRUT EW2305HL5003 AND LENGTHEN FIXED SWAY STRUT EW2305HL5004	07/19/2015	2-15-018

TABLE 2  
ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE  
2RE18  
October-November 2016

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	SYSTEM	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING	FEEDWATER SYSTEM	REPLACED 18" DIAMETER PIPE SPOOL FW-2026-N ON LINE 18"FW-2016-GA2 WITH FAC FAC RESISTANT MATERIAL OF MINIMUM CHROME CONTENT 0.1%	10/29/2016	2-15-019
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED 4X2 SWAGE FITTING IN THE CCW PUMP SUPPLEMENTAL COOLER 2C ECW SUPPLY LINE 2" EW-2313-WT3	12/01/2015	2-15-020
1	REPLACEMENT	RCP SEAL PACKAGE	REACTOR COOLANT	REPLACED REACTOR COOLANT PUMP 2C CARTRIDGE SEAL PACKAGE AND #1 SEAL	10/31/2016	2-15-021
1	REPLACEMENT	TEMPERATURE ELEMENT	REACTOR COOLANT	REPLACED RTD D2RC-TE-0420Y (REACTOR COOLANT SYSTEM LOOP 2B HOT LEG NARROW RANGE TEMPERATURE ELEMENT) AND THERMOWELL	11/08/2016	2-15-022
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED 8 " FLANGE & 90 DEG ELBOW OF SPOOL EW-2185-C ON ESSENTIAL CHILLER 22A ECW OUTLET LINE 8"EW-2185-WT3	11/17/2015	2-15-024
3	REPLACEMENT	VALVE	COMPONENT COOLING	REPLACED CCW COMMON RETURN HEADER PRESSURE RELIEF VALVE N2CCPSV4492	10/12/2016	2-15-025
1	REPLACEMENT	VALVE	REACTOR COOLANT	REPLACED PRESSURIZER SAFETY VALVE N2RCPSV3450	10/26/2016	2-15-026

TABLE 2  
ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE  
2RE18  
October-November 2016

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	SYSTEM	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPLACEMENT	VALVE	REACTOR COOLANT	REPLACED PRESSURIZER SAFETY VALVE N2RCPSV3451	10/26/2016	2-15-027
1	REPLACEMENT	VALVE	REACTOR COOLANT	REPLACED PRESSURIZER SAFETY VALVE N2RCPSV3452	10/26/2016	2-15-029
3	REPLACEMENT	FLANGE	ESSENTIAL COOLING WATER	REPLACED 30" FLAT FACED FLANGE IAW DCP 13-11301-7 AND A 30" FIELD PIPE WELD (.250 WALL) AL-BR TO AL-BR. TRAIN 2A ECW RETURN LINE DOWNSTREAM OF 2-EW-0027 AND 30" EW-2105-WT3 PER DCP IN PACKAGE	05/06/2016	2-16-002
1	REPAIR	VALVE	RESIDUAL HEAT REMOVAL	INSTALLED SEAL WELD ON RHR PUMP 2C SUCTION MOV (1R162XRH0061C)	10/25/2016	2-16-003
2	REPLACEMENT	VALVE	CHEMICAL & VOLUME CONTROL	INSTALLED NEW TRIM PACKAGE. REPACKED VALVE. REPLACED POSITIONER ON CVCS CHARGING DISCHARGE HEADER FLOW CONTROL VALVE (A2CVFCV0205)	10/26/2016	2-016-004
3	REPLACEMENT	PIPE	ESSENTIAL COOLING WATER	REPLACED AL-BZ PIPING DOWNSTREAM ON TRAIN 2A CCW HX OUTLET THOTTLE VALVE EW027 WITH STAINLESS STEEL PER DCP IN PACKAGE 13-11301-7	05/06/2016	2-16-006
3	REPLACEMENT	PIPE	ESSENTIAL COOLING WATER	REPLACED SPOOL EW-2114-C-A03 ON LINE 2"EW-2114-WT3.	05/04/2016	2-16-007

TABLE 2  
ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE  
2RE18  
October-November 2016

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	SYSTEM	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED OF AL-BZ 30" AND 2' PIPE/FITTINGS ON 30"EW-2476-UB3 AND 2"EW-2452-WB3 PER DC- 13-11301-8	06/10/2016	2-16-009
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED AL-BZ PIPE PUP PIECE AND FLANGE ON LINE 30" EW-2205-WT3.	06/07/2016	2-16-011
3	REPLACEMENT	PIPING	ESSENTIAL COOLING WATER	REPLACED AL-BZ 2" PIPING ON 2'EW2213WT3 AND 30"EW2205-WT3 PER DCP 13-11301-8	06/10/2016	2-16-012
3	REPLACEMENT	SUPPORT	ESSENTIAL COOLING WATER	REPLACED BROKEN SUPPORT FASTENER ON ECW PUMP 2A LOWER PUMP SEISMIC SUPPORT	07/27/2016	2-16-017
2	REPLACEMENT	VALVE	COMPONENT COOLING	REPLACED RHR TRAIN C CCW SUPPLY IRC CHECK VALVE (2R202TCC0183)	09/08/2016	2-16-021
MC	REPLACEMENT	BOLTING	MECHANICAL PENETRATION	REPLACE DAMAGED SWING BOLT EQUIPMENT HATCH (MECHANICAL PENETRATION EQUIPMENT HATCH 2C092NPN092A)	10/19/2016	2-16-024
2	REPLACEMENT	VALVE	CHEMICAL & VOLUME CONTROL	REPLACED CVCS VOLUME CONTROL TANK PRESSURE RELIEF VALVE ( N2CVPSV3101) WITH A SPARE	10/19/2016	2-16-025
2	REPLACEMENT	VALVE	CHEMICAL & VOLUME CONTROL	REPLACED RC PURIFICATION PUMP DISCHARGE PRESSURE RELIEF VALVE PSV3134 WITH A SPARE	10/19/2016	2-16-026

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ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE  
2RE18  
October-November 2016

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	SYSTEM	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPAIR	VALVE	SAFETY INJECTION	SEAL WELDED BODY TO BONNET ON SAFETY INJECTION TRAIN B TO LOOP 2B COLD LEG INJECTION CHECK VALVE 1N122XSI0038B	10/29/2016	2-16-029
2	REPLACEMENT	SUPPORT	FEED WATER	REPLACED SPRING CANS VARIABLE SPRING HANGER FW:2029-HL5001	10/30/2016	2-16-030
2	REPLACEMENT	SUPPORT	FEED WATER	REPLACED SPRING CAN VARIABLE SPRING HANGER FW:2032-HL5001	11/07/2016	2-16-031
2	REPLACEMENT	SUPPORT	FEED WATER	REPLACED SPRING CAN VARIABLE SPRING HANGER FW:2030-HL5001	10/30/2016	2-16-032
2	REPLACEMENT	SUPPORT	FEED WATER	REPLACED SPRING CAN VARIABLE SPRING HANGER FW:2031-HL5001	10/29/2016	2-16-033