



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

August 6, 2015  
NOC-AE-15003282  
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 – 2RE17

Attached are four copies of the South Texas Project Unit 2 summary report for inservice inspections performed prior to and during scheduled refueling outage 2RE17 completed in May 2015. 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 Rafael Gonzales at (361) 972-4779 or me at (361) 972-7030.

A handwritten signature in black ink that reads "Michael J. Berg". The signature is fluid and cursive.

Michael J. Berg  
Manager,  
Design Engineering  
Testing & Programs Engineering

rjg

Attachment: Summary Report for the 2RE17 Inservice Inspection of Unit 2 South Texas Project  
Electric Generating Station (4 copies)

A047  
WRR

STI: 34170421

cc:

(paper copy)

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
1600 East Lamar Boulevard  
Arlington, TX 76011-4511

Lisa M. Regner  
Senior Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint North (O8H04)  
11555 Rockville Pike  
Rockville, MD 20852

NRC Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 289, Mail Code: MN116  
Wadsworth, TX 77483

(electronic copy)

Morgan, Lewis & Bockius LLP  
Steve Frantz, Esquire

U.S. Nuclear Regulatory Commission  
Lisa M. Regner

NRG South Texas LP  
John Ragan  
Chris O'Hara  
Jim von Suskil

CPS Energy  
Kevin Pollo  
Cris Eugster  
L. D. Blaylock

Crain Caton & James, P.C.  
Peter Nemeth

City of Austin  
Cheryl Mele  
John Wester

Texas Dept. of State Health Services  
Richard A. Ratliff  
Robert Free

**SUMMARY REPORT**  
**for the**  
**2RE17**  
**INSERVICE INSPECTION**  
**of**  
**UNIT 2**  
**SOUTH TEXAS PROJECT**  
**ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**  
May 2015

## SCOPE

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

The examinations summarized in this report were performed in accordance with the 2004 Edition with no Addenda 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, 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 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 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 Metal Liner examinations summarized in this report were performed in accordance with the 2004 Edition No Addenda 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), second period (09/09/2013-09/08/2016). This report covers selected ASME Code Class CC liner & MC 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 IWE-2412 for ASME Code Class CC liner & MC Components. The Containment Metal Liner Components were examined in accordance with Table IWE-2500-1, Examination Categories.

The ASME Code Class CC components were examined during fall of 2014 as prescribed by Table IWL-2500-1; ASME 2004 Edition No addenda subsection IWL. 20<sup>th</sup> Year examinations were completed under Surveillance ST: 88000349 (0PSP09-TD-001 Containment Tendon Test/End Anchorage and Adjustment Concrete Inspection.)

DN  
8/4/15

COVER SHEET

2RE17 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 2

P.O. BOX 289

WADSWORTH, TEXAS 77483

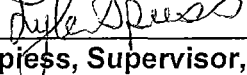
USNRC DOCKET NO: 50-499

OPERATING LICENSE NO: NPF-80

COMMERCIAL OPERATION DATE: June 19, 1989

Prepared by:   
J. Williams, ISI Program Engineer

Date July 24, 2015

Reviewed by:   
L. Spiess, Supervisor, INDE Inspection Programs

Date 8/3/15

AD 11  
8/14/15

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

Report Number 154115 OAR-2RE17

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE17  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup> ; IWE - 2<sup>nd</sup>, IWL - 20<sup>th</sup> Year  
(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 - 1<sup>st</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 No Addenda

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 2RE17 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date July 24, 2015  
(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.

Inspector's Signature [Signature] Commissions TX-756  
R. N. B. M. A. N. National Board, State, Province, and Endorsements

Date 8/4/2015

TABLE 1

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

2RE17  
April 2015

Examination Category	Item Number	Item Description	Evaluation Description
E-A	E1.11	CONTAINMENT LINER (180-270 DEG) >83' CC- LINER-GV-F	CR 15-9557- Examination on the containment liner NDE examiner identified two possible areas of coating degradation. Reference NDE report VTIWE-2015-007.  Determined to be surface abrasions of coating and showed no signs of distress indicating possible damage or degradation of the base metal.
F-A	F1.20B	Component Support FW-2016-HL5013 (Variable Spring Hanger)	CR 15-8877-Spring hanger (SH-V (2) FW-2016-HL5013 component was found contacting adjacent line 3"-FW-2211-EC7. Noted damaged insulation on 3"-FW-2211-EC7.  Damaged insulation was removed to verify 5" clearance distance from centerline of 3"FW-2052-AA2 to lead edge of hanger rod no adjustment required to component support. Insulation was corrected by allowing clearance spacing for rod hanger.

## NOTES:

1. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE17.

Ad 11  
230  
6/4/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-010
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-011
3	REPLACEMENT	VALVE	REPLACED VALVE	1/17/2015	2-13-016
3	REPLACEMENT	FLANGE	REPLACED 30" ALUMINUM BRONZE OVERLAY FLANGE TO 30" ALUMINUM BRONZE PIPE ASSEMBLY	3/17/2014	2-13-023
3	REPLACEMENT	FLANGE	ALUMINUM BRONZE PIPING IN SPOOL	1/15/2015	2-13-029
3	REPLACEMENT	FLANGE	REPLACE THE FLANGE AND SECTION OF THE SPOOL	2/19/2014	2-13-033
3	REPLACEMENT	MECHANICAL SEALS	REPLACED MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 2B (3R212NPA201B)	12/11/2014	2-13-067
3	REPLACEMENT	BALL AND SEALS	REPLACED BALL AND SEAT AS AN ASSEMBLY OF BORIC ACID TANK 2B DRAIN VALVE (3R172TCV0404)	4/09/2015	2-14-003
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-005
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-006
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2B DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057B AND RC-0058B	4/16/2015	2-14-007
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2C DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057C AND RC-0058C	4/16/2015	2-14-008

DW11  
 DW  
 8/6/15



TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2D DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057D AND RC-0058D	4/16/2015	2-14-009
1	REPLACEMENT	SUPPORT	INSTALLED U-STRAP ON PIPE SUPPORT RC2321 HS5001 (TO FACILITATE REPLACEMENT OF 2-RC-0057C AND 2-RC-0058C)	4/16/2015	2-14-010
2	REPLACEMENT	PIPING	REPLACED 18" PIPING SPOOL FW-2012-K IN U2 IVC WITH FAC RESISTANT MATERIAL	4/28/2015	2-14-011
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2014-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/28/2015	2-14-012
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2018-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/29/2015	2-14-013
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2B (1R132NPP201B)	4/27/2015	2-14-014
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2D (1R132NPP201D)	4/27/1015	2-14-015
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3450) DURING REFUELING OUTAGE	4/22/2015	2-14-016
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3451) DURING REFUELING OUTAGE	4/22/2015	2-14-017
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3452) DURING REFUELING OUTAGE	4/22/2015	2-14-018
3	REPLACEMENT	COOLER	REPLACED UPPER BEARING OIL COOLER (S/N 946701-2/NB-6146), AND 2 MOTOR AIR COOLERS (S/N 946901-2/NB-6140 & 946901-5/NB-6143) AS PART OF OVERALL MOTOR CHANGEOUT PROJECT. COOLERS ARE ATTACHED SUBCOMPONENTS OF THE MOTOR AND ARE SERVICED BY C.C.W	4/28/2015	2-14-019

AN11  
ad  
5/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD	INSTALL NEW 3"CS-2201-UB2 VIA INSTALLATION OF NEW 12" X 3" WOL INTO EXISTING LINE 12"CS-2201-UB2. NEW VALVE 2N102TCS0060 WILL BE PART OF NEW LINE 3"CS-2201-UB2	5/01/2015	2-14-022
1	REPLACEMENT	THIMBLE	REPLACE FLUX MAP BMI THIMBLE TUBE EGS FITTINGS PART OF THE INCORE INSTRUMENTATION SYSTEM	4/26/2015	2-14-023
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2079-WB3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 8" ASME CL. 3 PIPE SPOOL: AF-2079-E	5/01/2015	2-14-024
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2047-GA3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 4" ASME CL. 3 PIPE SPOOL: AF-2047-E PER	5/01/2015	2-14-025
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-026
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-027
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-028
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-029

AD/1  
 15/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2101-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210A) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2101-UB2 AT SPOOL SI-2101-AA IAW DCN 1301507. * NOTE: THIS IS NEW FLEX PUMP'S SUCTION LINE	1/01/2015	2-14-030
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2106-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211A) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2106-DB2 AT SPOOL SI-2106-F IAW DCN 1301508. * NOTE: THIS IS NEW FLEX PUMP'S DISCHARGE LINE	1/01/2015	2-14-031
1	REPLACEMENT	BOLTING	REPLACED RCP(1R132NPP201B) 2B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/23/2015	2-14-032
1	REPLACEMENT	BOLTING	REPLACE RCP (1R132NPP201D) 2D SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/14/2015	2-14-033
2	REPLACEMENT	VALVE PARTS	MACHINED ALL SEALING AREAS OF VALVE AND REPLACED BONNET PLUG	4/30/2015	2-14-034
1	REPLACEMENT	VALVE	1R162XRH0032A REPLACE RH-0032A (LO HEAD SAFETY INJECTION TRAIN A TO LOOP 2A COLD LEG CHECK VALVE) WITH A DIFFERENT DESIGN OF CHECK VALVE	4/18/2015	2-14-038
3	REPLACEMENT	FLANGE	REPLACED BLIND FLANGE AND ADD FASTENERS	1/14/2015	2-14-040

*Handwritten signature*  
8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17  
April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-041
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-042
3	REPLACEMENT	VALVE	REPLACED BALL/SEAT ASSEMBLY	1/15/2015	2-14-043
3	REPLACEMENT	VALVE	REPLACED TEW1002 ESSENTIAL CHILLER 22A ECW RETURN VALVE WITH A STAINLESS STEEL VALVE	1/15/2015	2-14-044
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2405-02P ON LINE EW-2405 BEGINNING AT FW# 0001 TO FW# 0002	1/15/2015	2-14-045
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2201-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210B) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2201-UB2 AT SPOOL SI-2101-P IAW DCN 1402354	5/01/2015	2-14-047
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2206-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211B) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2206-DB2 AT SPOOL SI-2206-F IAW DCN 1402355	5/01/2015	2-14-048

AP11  
SD  
8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

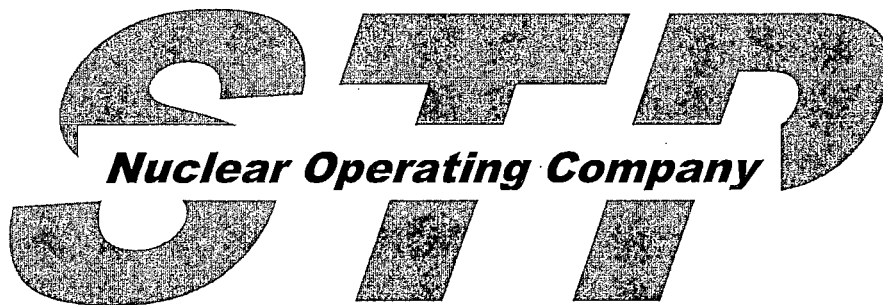
2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW ASME CL. 3 PIPING; LINE NO. 3"AF-2077WB3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0100 VIA ADDITION OF 8" X 3" WOL TO EXISTING SPOOL AF-2077-E AS SHOWN PER DCN 1401802 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-049
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW FLEX PUMP DISCHARGE LINE NO. 3"AF-2014GA3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0101 VIA ADDITION OF 4" X 3" WOL TO EXISTING SPOOL AF-2014-E AS SHOWN PER DCN 1401803 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-050
2	REPLACEMENT	VALVE	REPLACED(A2FWFV7141) STEAM GENERATOR 2A ORC FEEDWATER ISOLATION VALVE ORFICE PLATE	4/24/2015	2-15-002
3	REPLACEMENT	GASKET	REPLACED INTERCOOLER COVER GASKET	1/21/2015	2-15-003
3	REPLACEMENT	VALVE	REPLACED ECW TRAIN 2B DISCHARGE CHECK VALVE 2-EW-0042 WITH ROTATING SPARE CHECK VALVE	3/19/2015	2-15-007
2	REPAIR	VALVE	RETAINING RING WAS SEAL WELDED AND VALVE REASSEMBLED	4/10/2015	2-15-012
3	REPLACEMENT	STUD	REPLACED FLANGE FASTENERS FOR 2"/3" CC-2503-CA3	4/27/2015	2-15-013
1	REPLACEMENT	SUPPORT	REPLACED VARIABLE SPRING HANGER RC2422HL5016 LOCATED ON U2 D-LOOP 4 " PRESSURIZER SPRAY LINE RC-2422-BB1	4/22/2015	2-15-014

*ADH*  
*5/6/15*

**SUMMARY REPORT  
for the  
2RE17  
INSERVICE INSPECTION  
of  
UNIT 2  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

May 2015

## SCOPE

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

The examinations summarized in this report were performed in accordance with the 2004 Edition with no Addenda 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, 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 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 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 Metal Liner examinations summarized in this report were performed in accordance with the 2004 Edition No Addenda 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), second period (09/09/2013-09/08/2016). This report covers selected ASME Code Class CC liner & MC 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 IWE-2412 for ASME Code Class CC liner & MC Components. The Containment Metal Liner Components were examined in accordance with Table IWE-2500-1, Examination Categories.

The ASME Code Class CC components were examined during fall of 2014 as prescribed by Table IWL-2500-1; ASME 2004 Edition No addenda subsection IWL. 20<sup>th</sup> Year examinations were completed under Surveillance ST: 88000349 (0PSP09-TD-001 Containment Tendon Test/End Anchorage and Adjustment Concrete Inspection.)

DN  
8/4/15

COVER SHEET

2RE17 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 2

P.O. BOX 289

WADSWORTH, TEXAS 77483

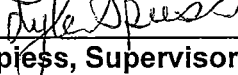
USNRC DOCKET NO: 50-499

OPERATING LICENSE NO: NPF-80

COMMERCIAL OPERATION DATE: June 19, 1989

Prepared by:   
J. Williams, ISI Program Engineer

Date July 24, 2015

Reviewed by:   
L. Spiess, Supervisor, /NDE Inspection Programs

Date 8/3/15

AN 11  
AN  
8/4/15



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

Report Number 150115 OAR-2RE17

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE17  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup> ; IWE - 2<sup>nd</sup>, IWL - 20<sup>th</sup> Year  
(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 - 1<sup>st</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 No Addenda

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 2RE17 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date July 24, 2015  
(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.

Inspector's Signature [Signature] Commissions TX-756  
R. N. B. M. A. National Board, State, Province, and Endorsements

Date 8/4/2015

TABLE 1

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

2RE17  
April 2015

Examination Category	Item Number	Item Description	Evaluation Description
E-A	E1.11	CONTAINMENT LINER (180-270 DEG) >83' CC- LINER-GV-F	CR 15-9557- Examination on the containment liner NDE examiner identified two possible areas of coating degradation. Reference NDE report VTIVE-2015-007.  Determined to be surface abrasions of coating and showed no signs of distress indicating possible damage or degradation of the base metal.
F-A	F1.20B	Component Support FW-2016-HL5013 (Variable Spring Hanger)	CR 15-8877-Spring hanger (SH-V (2) FW-2016-HL5013 component was found contacting adjacent line 3"-FW-2211-EC7. Noted damaged insulation on 3"-FW-2211-EC7.  Damaged insulation was removed to verify 5" clearance distance from centerline of 3"FW-2052-AA2 to lead edge of hanger rod no adjustment required to component support. Insulation was corrected by allowing clearance spacing for rod hanger.

## NOTES:

1. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE17.

Ad 11  
Bd  
6/4/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17  
April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-010
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-011
3	REPLACEMENT	VALVE	REPLACED VALVE	1/17/2015	2-13-016
3	REPLACEMENT	FLANGE	REPLACED 30" ALUMINUM BRONZE OVERLAY FLANGE TO 30" ALUMINUM BRONZE PIPE ASSEMBLY	3/17/2014	2-13-023
3	REPLACEMENT	FLANGE	ALUMINUM BRONZE PIPING IN SPOOL	1/15/2015	2-13-029
3	REPLACEMENT	FLANGE	REPLACE THE FLANGE AND SECTION OF THE SPOOL	2/19/2014	2-13-033
3	REPLACEMENT	MECHANICAL SEALS	REPLACED MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 2B (3R212NPA201B)	12/11/2014	2-13-067
3	REPLACEMENT	BALL AND SEALS	REPLACED BALL AND SEAT AS AN ASSEMBLY OF BORIC ACID TANK 2B DRAIN VALVE (3R172TCV0404)	4/09/2015	2-14-003
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-005
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-006
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2B DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057B AND RC-0058B	4/16/2015	2-14-007
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2C DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057C AND RC-0058C	4/16/2015	2-14-008

*DN 11*  
*DN*  
*8/6/15*

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2D DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057D AND RC-0058D	4/16/2015	2-14-009
1	REPLACEMENT	SUPPORT	INSTALLED U-STRAP ON PIPE SUPPORT RC2321 HS5001 (TO FACILITATE REPLACEMENT OF 2-RC-0057C AND 2-RC-0058C)	4/16/2015	2-14-010
2	REPLACEMENT	PIPING	REPLACED 18" PIPING SPOOL FW-2012-K IN U2 IVC WITH FAC RESISTANT MATERIAL	4/28/2015	2-14-011
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2014-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/28/2015	2-14-012
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2018-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/29/2015	2-14-013
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2B (1R132NPP201B)	4/27/2015	2-14-014
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2D (1R132NPP201D)	4/27/1015	2-14-015
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3450) DURING REFUELING OUTAGE	4/22/2015	2-14-016
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3451) DURING REFUELING OUTAGE	4/22/2015	2-14-017
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3452) DURING REFUELING OUTAGE	4/22/2015	2-14-018
3	REPLACEMENT	COOLER	REPLACED UPPER BEARING OIL COOLER (S/N 946701-2/NB-6146), AND 2 MOTOR AIR COOLERS (S/N 946901-2/NB-6140 & 946901-5/NB-6143) AS PART OF OVERALL MOTOR CHANGEOUT PROJECT. COOLERS ARE ATTACHED SUBCOMPONENTS OF THE MOTOR AND ARE SERVICED BY C.C.W	4/28/2015	2-14-019

AN11  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE2RE17  
April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD	INSTALL NEW 3"CS-2201-UB2 VIA INSTALLATION OF NEW 12" X 3" WOL INTO EXISTING LINE 12"CS-2201-UB2. NEW VALVE 2N102TCS0060 WILL BE PART OF NEW LINE 3"CS-2201-UB2	5/01/2015	2-14-022
1	REPLACEMENT	THIMBLE	REPLACE FLUX MAP BMI THIMPLE TUBE EGS FITTINGS PART OF THE INCORE INSTRUMENTATION SYSTEM	4/26/2015	2-14-023
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2079-WB3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 8" ASME CL. 3 PIPE SPOOL: AF-2079-E	5/01/2015	2-14-024
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2047-GA3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 4" ASME CL. 3 PIPE SPOOL: AF-2047-E PER	5/01/2015	2-14-025
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-026
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-027
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-028
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-029

AN/11  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2101-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210A) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2101-UB2 AT SPOOL SI-2101-AA IAW DCN 1301507. * NOTE: THIS IS NEW FLEX PUMP'S SUCTION LINE	1/01/2015	2-14-030
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2106-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211A) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2106-DB2 AT SPOOL SI-2106-F IAW DCN 1301508. * NOTE: THIS IS NEW FLEX PUMP'S DISCHARGE LINE	1/01/2015	2-14-031
1	REPLACEMENT	BOLTING	REPLACED RCP(1R132NPP201B) 2B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/23/2015	2-14-032
1	REPLACEMENT	BOLTING	REPLACE RCP (1R132NPP201D) 2D SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/14/2015	2-14-033
2	REPLACEMENT	VALVE PARTS	MACHINED ALL SEALING AREAS OF VALVE AND REPLACED BONNET PLUG	4/30/2015	2-14-034
1	REPLACEMENT	VALVE	1R162XRH0032A REPLACE RH-0032A (LO HEAD SAFETY INJECTION TRAIN A TO LOOP 2A COLD LEG CHECK VALVE) WITH A DIFFERENT DESIGN OF CHECK VALVE	4/18/2015	2-14-038
3	REPLACEMENT	FLANGE	REPLACED BLIND FLANGE AND ADD FASTENERS	1/14/2015	2-14-040

*Done*  
*8/6/15*

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-041
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-042
3	REPLACEMENT	VALVE	REPLACED BALL/SEAT ASSEMBLY	1/15/2015	2-14-043
3	REPLACEMENT	VALVE	REPLACED TEW1002 ESSENTIAL CHILLER 22A ECW RETURN VALVE WITH A STAINLESS STEEL VALVE	1/15/2015	2-14-044
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2405-02P ON LINE EW-2405 BEGINNING AT FW# 0001 TO FW# 0002	1/15/2015	2-14-045
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2201-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210B) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2201-UB2 AT SPOOL SI-2101-P IAW DCN 1402354	5/01/2015	2-14-047
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2206-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211B) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2206-DB2 AT SPOOL SI-2206-F IAW DCN 1402355	5/01/2015	2-14-048

APR 11  
 5/6/15


TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW ASME CL. 3 PIPING; LINE NO. 3"AF-2077WB3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0100 VIA ADDITION OF 8" X 3" WOL TO EXISTING SPOOL AF-2077-E AS SHOWN PER DCN 1401802 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-049
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW FLEX PUMP DISCHARGE LINE NO. 3"AF-2014GA3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0101 VIA ADDITION OF 4" X 3" WOL TO EXISTING SPOOL AF-2014-E AS SHOWN PER DCN 1401803 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-050
2	REPLACEMENT	VALVE	REPLACED(A2FWFV7141) STEAM GENERATOR 2A ORC FEEDWATER ISOLATION VALVE ORFICE PLATE	4/24/2015	2-15-002
3	REPLACEMENT	GASKET	REPLACED INTERCOOLER COVER GASKET	1/21/2015	2-15-003
3	REPLACEMENT	VALVE	REPLACED ECW TRAIN 2B DISCHARGE CHECK VALVE 2-EW-0042 WITH ROTATING SPARE CHECK VALVE	3/19/2015	2-15-007
2	REPAIR	VALVE	RETAINING RING WAS SEAL WELDED AND VALVE REASSEMBLED	4/10/2015	2-15-012
3	REPLACEMENT	STUD	REPLACED FLANGE FASTENERS FOR 2"3" CC-2503-CA3	4/27/2015	2-15-013
1	REPLACEMENT	SUPPORT	REPLACED VARIABLE SPRING HANGER RC2422HL5016 LOCATED ON U2 D-LOOP 4 " PRESSURIZER SPRAY LINE RC-2422-BB1	4/22/2015	2-15-014

  
 5/6/15



**SUMMARY REPORT  
for the  
2RE17  
INSERVICE INSPECTION  
of  
UNIT 2  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

May 2015

## SCOPE

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

The examinations summarized in this report were performed in accordance with the 2004 Edition with no Addenda 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, 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 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 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 Metal Liner examinations summarized in this report were performed in accordance with the 2004 Edition No Addenda 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), second period (09/09/2013-09/08/2016). This report covers selected ASME Code Class CC liner & MC 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 IWE-2412 for ASME Code Class CC liner & MC Components. The Containment Metal Liner Components were examined in accordance with Table IWE-2500-1, Examination Categories.

The ASME Code Class CC components were examined during fall of 2014 as prescribed by Table IWL-2500-1; ASME 2004 Edition No addenda subsection IWL. 20<sup>th</sup> Year examinations were completed under Surveillance ST: 88000349 (0PSP09-TD-001 Containment Tendon Test/End Anchorage and Adjustment Concrete Inspection.)

DN  
8/4/16

COVER SHEET

2RE17 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 July 24, 2015

Reviewed by:   
L. Spiess, Supervisor, /NDE Inspection Programs

Date 8/3/15

AN 11  
AN  
8/4/15

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

Report Number OAR-2RE17

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE17  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup>; IWE - 2<sup>nd</sup>, IWL - 20<sup>th</sup> Year  
(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 - 1<sup>st</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 No Addenda

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 2RE17 conform to the requirements of Section XI.  
(Refueling outage number)

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

Date July 24, 2015

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]  
Inspector's Signature  
R. N. B. M. A. N.

Commissions

TX-756  
National Board, State, Province, and Endorsements

Date 8/4/2015

TABLE 1

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

2RE17  
April 2015

Examination Category	Item Number	Item Description	Evaluation Description
E-A	E1.11	CONTAINMENT LINER (180-270 DEG) >83' CC- LINER-GV-F	CR 15-9557- Examination on the containment liner NDE examiner identified two possible areas of coating degradation. Reference NDE report VTIWE-2015-007.  Determined to be surface abrasions of coating and showed no signs of distress indicating possible damage or degradation of the base metal.
F-A	F1.20B	Component Support FW-2016-HL5013 (Variable Spring Hanger)	CR 15-8877-Spring hanger (SH-V (2) FW-2016-HL5013 component was found contacting adjacent line 3"-FW-2211-EC7. Noted damaged insulation on 3"-FW-2211-EC7.  Damaged insulation was removed to verify 5" clearance distance from centerline of 3"FW-2052-AA2 to lead edge of hanger rod no adjustment required to component support. Insulation was corrected by allowing clearance spacing for rod hanger.

## NOTES:

1. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE17.

AP/11  
Bd  
6/14/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-010
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-011
3	REPLACEMENT	VALVE	REPLACED VALVE	1/17/2015	2-13-016
3	REPLACEMENT	FLANGE	REPLACED 30" ALUMINUM BRONZE OVERLAY FLANGE TO 30" ALUMINUM BRONZE PIPE ASSEMBLY	3/17/2014	2-13-023
3	REPLACEMENT	FLANGE	ALUMINUM BRONZE PIPING IN SPOOL	1/15/2015	2-13-029
3	REPLACEMENT	FLANGE	REPLACE THE FLANGE AND SECTION OF THE SPOOL	2/19/2014	2-13-033
3	REPLACEMENT	MECHANICAL SEALS	REPLACED MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 2B (3R212NPA201B)	12/11/2014	2-13-067
3	REPLACEMENT	BALL AND SEALS	REPLACED BALL AND SEAT AS AN ASSEMBLY OF BORIC ACID TANK 2B DRAIN VALVE (3R172TCV0404)	4/09/2015	2-14-003
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-005
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-006
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2B DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057B AND RC-0058B	4/16/2015	2-14-007
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2C DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057C AND RC-0058C	4/16/2015	2-14-008

DW  
 DW  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2D DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057D AND RC-0058D	4/16/2015	2-14-009
1	REPLACEMENT	SUPPORT	INSTALLED U-STRAP ON PIPE SUPPORT RC2321 HS5001 (TO FACILITATE REPLACEMENT OF 2-RC-0057C AND 2-RC-0058C)	4/16/2015	2-14-010
2	REPLACEMENT	PIPING	REPLACED 18" PIPING SPOOL FW-2012-K IN U2 IVC WITH FAC RESISTANT MATERIAL	4/28/2015	2-14-011
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2014-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/28/2015	2-14-012
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2018-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/29/2015	2-14-013
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2B (1R132NPP201B)	4/27/2015	2-14-014
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2D (1R132NPP201D)	4/27/1015	2-14-015
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3450) DURING REFUELING OUTAGE	4/22/2015	2-14-016
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3451) DURING REFUELING OUTAGE	4/22/2015	2-14-017
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3452) DURING REFUELING OUTAGE	4/22/2015	2-14-018
3	REPLACEMENT	COOLER	REPLACED UPPER BEARING OIL COOLER (S/N 946701-2/NB-6146), AND 2 MOTOR AIR COOLERS (S/N 946901-2/NB-6140 & 946901-5/NB-6143) AS PART OF OVERALL MOTOR CHANGEOUT PROJECT. COOLERS ARE ATTACHED SUBCOMPONENTS OF THE MOTOR AND ARE SERVICED BY C.C.W	4/28/2015	2-14-019

AN11  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD	INSTALL NEW 3"CS-2201-UB2 VIA INSTALLATION OF NEW 12" X 3" WOL INTO EXISTING LINE 12"CS-2201-UB2. NEW VALVE 2N102TCS0060 WILL BE PART OF NEW LINE 3"CS-2201-UB2	5/01/2015	2-14-022
1	REPLACEMENT	THIMBLE	REPLACE FLUX MAP BMI THIMPLE TUBE EGS FITTINGS PART OF THE INCORE INSTRUMENTATION SYSTEM	4/26/2015	2-14-023
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2079-WB3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 8" ASME CL. 3 PIPE SPOOL: AF-2079-E	5/01/2015	2-14-024
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2047-GA3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 4" ASME CL. 3 PIPE SPOOL: AF-2047-E PER	5/01/2015	2-14-025
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-026
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-027
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-028
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-029

AN11  
 9/6/15



TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2101-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210A) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2101-UB2 AT SPOOL SI-2101-AA IAW DCN 1301507. * NOTE: THIS IS NEW FLEX PUMP'S SUCTION LINE	1/01/2015	2-14-030
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2106-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211A) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2106-DB2 AT SPOOL SI-2106-F IAW DCN 1301508. * NOTE: THIS IS NEW FLEX PUMP'S DISCHARGE LINE	1/01/2015	2-14-031
1	REPLACEMENT	BOLTING	REPLACED RCP(1R132NPP201B) 2B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/23/2015	2-14-032
1	REPLACEMENT	BOLTING	REPLACE RCP (1R132NPP201D) 2D SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/14/2015	2-14-033
2	REPLACEMENT	VALVE PARTS	MACHINED ALL SEALING AREAS OF VALVE AND REPLACED BONNET PLUG	4/30/2015	2-14-034
1	REPLACEMENT	VALVE	1R162XRH0032A REPLACE RH-0032A (LO HEAD SAFETY INJECTION TRAIN A TO LOOP 2A COLD LEG CHECK VALVE) WITH A DIFFERENT DESIGN OF CHECK VALVE	4/18/2015	2-14-038
3	REPLACEMENT	FLANGE	REPLACED BLIND FLANGE AND ADD FASTENERS	1/14/2015	2-14-040

*Handwritten signature*  
8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-041
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-042
3	REPLACEMENT	VALVE	REPLACED BALL/SEAT ASSEMBLY	1/15/2015	2-14-043
3	REPLACEMENT	VALVE	REPLACED TEW1002 ESSENTIAL CHILLER 22A ECW RETURN VALVE WITH A STAINLESS STEEL VALVE	1/15/2015	2-14-044
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2405-02P ON LINE EW-2405 BEGINNING AT FW# 0001 TO FW# 0002	1/15/2015	2-14-045
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2201-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210B) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2201-UB2 AT SPOOL SI-2101-P IAW DCN 1402354	5/01/2015	2-14-047
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2206-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211B) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2206-DB2 AT SPOOL SI-2206-F IAW DCN 1402355	5/01/2015	2-14-048

APR 11  
 5/4/15

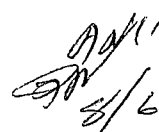
TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW ASME CL. 3 PIPING; LINE NO. 3"AF-2077WB3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0100 VIA ADDITION OF 8" X 3" WOL TO EXISTING SPOOL AF-2077-E AS SHOWN PER DCN 1401802 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-049
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW FLEX PUMP DISCHARGE LINE NO. 3"AF-2014GA3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0101 VIA ADDITION OF 4" X 3" WOL TO EXISTING SPOOL AF-2014-E AS SHOWN PER DCN 1401803 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-050
2	REPLACEMENT	VALVE	REPLACED(A2FWFV7141) STEAM GENERATOR 2A ORC FEEDWATER ISOLATION VALVE ORFICE PLATE	4/24/2015	2-15-002
3	REPLACEMENT	GASKET	REPLACED INTERCOOLER COVER GASKET	1/21/2015	2-15-003
3	REPLACEMENT	VALVE	REPLACED ECW TRAIN 2B DISCHARGE CHECK VALVE 2-EW-0042 WITH ROTATING SPARE CHECK VALVE	3/19/2015	2-15-007
2	REPAIR	VALVE	RETAINING RING WAS SEAL WELDED AND VALVE REASSEMBLED	4/10/2015	2-15-012
3	REPLACEMENT	STUD	REPLACED FLANGE FASTENERS FOR 2"3" CC-2503-CA3	4/27/2015	2-15-013
1	REPLACEMENT	SUPPORT	REPLACED VARIABLE SPRING HANGER RC2422HL5016 LOCATED ON U2 D-LOOP 4 " PRESSURIZER SPRAY LINE RC-2422-BB1	4/22/2015	2-15-014

  
 5/6/15

**SUMMARY REPORT  
for the  
2RE17  
INSERVICE INSPECTION  
of  
UNIT 2  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

May 2015

## SCOPE

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

The examinations summarized in this report were performed in accordance with the 2004 Edition with no Addenda 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, 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 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 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 Metal Liner examinations summarized in this report were performed in accordance with the 2004 Edition No Addenda 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), second period (09/09/2013-09/08/2016). This report covers selected ASME Code Class CC liner & MC 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 IWE-2412 for ASME Code Class CC liner & MC Components. The Containment Metal Liner Components were examined in accordance with Table IWE-2500-1, Examination Categories.

The ASME Code Class CC components were examined during fall of 2014 as prescribed by Table IWL-2500-1; ASME 2004 Edition No addenda subsection IWL. 20<sup>th</sup> Year examinations were completed under Surveillance ST: 88000349 (0PSP09-TD-001 Containment Tendon Test/End Anchorage and Adjustment Concrete Inspection.)

DN  
8/4/15

COVER SHEET

2RE17 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 2

P.O. BOX 289

WADSWORTH, TEXAS 77483

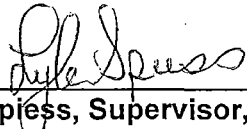
USNRC DOCKET NO: 50-499

OPERATING LICENSE NO: NPF-80

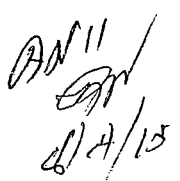
COMMERCIAL OPERATION DATE: June 19, 1989

Prepared by:   
J. Williams, ISI Program Engineer

Date July 24, 2015

Reviewed by:   
L. Spess, Supervisor, /NDE Inspection Programs

Date 8/3/15

  
AN11  
8/4/15

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

Report Number 15-01015 OAR-2RE17

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE17  
(If applicable)

Current inspection interval IWB, IWC, IWD, IWF - 3<sup>rd</sup> ; IWE - 2<sup>nd</sup>, IWL - 20<sup>th</sup> Year  
(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 - 1<sup>st</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 No Addenda

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 2RE17 conform to the requirements of Section XI.  
(Refueling outage number)

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

Date July 24, 2015

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]  
Inspector's Signature  
R. N. B. M. A. N.

Commissions

TX-756  
National Board, State, Province, and Endorsements

Date 8/4/2015

TABLE 1

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

2RE17  
April 2015

Examination Category	Item Number	Item Description	Evaluation Description
E-A	E1.11	CONTAINMENT LINER (180-270 DEG) >83' CC- LINER-GV-F	CR 15-9557- Examination on the containment liner NDE examiner identified two possible areas of coating degradation. Reference NDE report VTIWE-2015-007.  Determined to be surface abrasions of coating and showed no signs of distress indicating possible damage or degradation of the base metal.
F-A	F1.20B	Component Support FW-2016-HL5013 (Variable Spring Hanger)	CR 15-8877-Spring hanger (SH-V (2) FW-2016-HL5013 component was found contacting adjacent line 3"-FW-2211-EC7. Noted damaged insulation on 3"-FW-2211-EC7.  Damaged insulation was removed to verify 5" clearance distance from centerline of 3"FW-2052-AA2 to lead edge of hanger rod no adjustment required to component support. Insulation was corrected by allowing clearance spacing for rod hanger.

## NOTES:

1. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE17.

APR 11  
2015  
6/4/15



TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-010
3	REPLACEMENT	VALVE	REPLACED VALVE AND REPLACE FLANGE FASTENERS AT VALVE/FLANGE CONNECTION	1/13/2015	2-07-011
3	REPLACEMENT	VALVE	REPLACED VALVE	1/17/2015	2-13-016
3	REPLACEMENT	FLANGE	REPLACED 30" ALUMINUM BRONZE OVERLAY FLANGE TO 30" ALUMINUM BRONZE PIPE ASSEMBLY	3/17/2014	2-13-023
3	REPLACEMENT	FLANGE	ALUMINUM BRONZE PIPING IN SPOOL	1/15/2015	2-13-029
3	REPLACEMENT	FLANGE	REPLACE THE FLANGE AND SECTION OF THE SPOOL	2/19/2014	2-13-033
3	REPLACEMENT	MECHANICAL SEALS	REPLACED MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 2B (3R212NPA201B)	12/11/2014	2-13-067
3	REPLACEMENT	BALL AND SEALS	REPLACED BALL AND SEAT AS AN ASSEMBLY OF BORIC ACID TANK 2B DRAIN VALVE (3R172TCV0404)	4/09/2015	2-14-003
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-005
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2A DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057A AND RC-0058A	4/16/2015	2-14-006
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2B DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057B AND RC-0058B	4/16/2015	2-14-007
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2C DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057C AND RC-0058C	4/16/2015	2-14-008

DW  
 DW  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE2RE17  
April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
1	REPLACEMENT	VALVE	REPLACED REACTOR COOLANT SYSTEM LOOP 2D DRAIN TO RCDT FIRST AND SECOND ISOLATION VALVES, RC-0057D AND RC-0058D	4/16/2015	2-14-009
1	REPLACEMENT	SUPPORT	INSTALLED U-STRAP ON PIPE SUPPORT RC2321 HS5001 (TO FACILITATE REPLACEMENT OF 2-RC-0057C AND 2-RC-0058C)	4/16/2015	2-14-010
2	REPLACEMENT	PIPING	REPLACED 18" PIPING SPOOL FW-2012-K IN U2 IVC WITH FAC RESISTANT MATERIAL	4/28/2015	2-14-011
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2014-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/28/2015	2-14-012
2	REPLACEMENT	PIPING	REPLACED PIPING SPOOL FW-2018-K WITH MATERIAL PER PIPE SPEC GA WITH MINIMUM CHROME CONTENT OF 0.1%	4/29/2015	2-14-013
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2B (1R132NPP201B)	4/27/2015	2-14-014
1	REPLACEMENT	SEAL PACKAGE	REPLACED RCP SEALS WITH REFIRBISHED SEALS OF REACTOR COOLANT PUMP 2D (1R132NPP201D)	4/27/1015	2-14-015
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3450) DURING REFUELING OUTAGE	4/22/2015	2-14-016
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3451) DURING REFUELING OUTAGE	4/22/2015	2-14-017
1	REPLACEMENT	VALVE	SCHEDULED REPLACEMENT OF PRESSURIZER SAFETY VALVE (N2RCPSV3452) DURING REFUELING OUTAGE	4/22/2015	2-14-018
3	REPLACEMENT	COOLER	REPLACED UPPER BEARING OIL COOLER (S/N 946701-2/NB-6146), AND 2 MOTOR AIR COOLERS (S/N 946901-2/NB-6140 & 946901-5/NB-6143) AS PART OF OVERALL MOTOR CHANGEOUT PROJECT. COOLERS ARE ATTACHED SUBCOMPONENTS OF THE MOTOR AND ARE SERVICED BY C.C.W	4/28/2015	2-14-019

AN11  
 and  
 8/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD	INSTALL NEW 3"CS-2201-UB2 VIA INSTALLATION OF NEW 12" X 3" WOL INTO EXISTING LINE 12"CS-2201-UB2. NEW VALVE 2N102TCS0060 WILL BE PART OF NEW LINE 3"CS-2201-UB2	5/01/2015	2-14-022
1	REPLACEMENT	THIMBLE	REPLACE FLUX MAP BMI THIMBLE TUBE EGS FITTINGS PART OF THE INCORE INSTRUMENTATION SYSTEM	4/26/2015	2-14-023
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2079-WB3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 8" ASME CL. 3 PIPE SPOOL: AF-2079-E	5/01/2015	2-14-024
3	REPLACEMENT	PIPING/FLEX MOD	ADD / INSTALL NEW ASME CL. 3 PIPE LINE NO. 3"AF-2047-GA3 (INCLUDES NEW 3" GATE VALVE AND "NF" WELDED U-STRAP PIPE SUPPORT) TO EXISTING 4" ASME CL. 3 PIPE SPOOL: AF-2047-E PER	5/01/2015	2-14-025
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-026
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3657B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-027
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658A WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-028
1	REPLACEMENT	VALVE	REPLACED HEAD VENT ISOLATION VALVE 2-HV-3658B WITH UPGRADED BOLTED BONNET VALVE WITH HIGHER OPENING FORCES	4/21/2015	2-14-029


AD11  
  
 5/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17

April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2101-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210A) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2101-UB2 AT SPOOL SI-2101-AA IAW DCN 1301507. * NOTE: THIS IS NEW FLEX PUMP'S SUCTION LINE	1/01/2015	2-14-030
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2106-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211A) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2106-DB2 AT SPOOL SI-2106-F IAW DCN 1301508. * NOTE: THIS IS NEW FLEX PUMP'S DISCHARGE LINE	1/01/2015	2-14-031
1	REPLACEMENT	BOLTING	REPLACED RCP(1R132NPP201B) 2B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/23/2015	2-14-032
1	REPLACEMENT	BOLTING	REPLACE RCP (1R132NPP201D) 2D SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS	4/14/2015	2-14-033
2	REPLACEMENT	VALVE PARTS	MACHINED ALL SEALING AREAS OF VALVE AND REPLACED BONNET PLUG	4/30/2015	2-14-034
1	REPLACEMENT	VALVE	1R162XRH0032A REPLACE RH-0032A (LO HEAD SAFETY INJECTION TRAIN A TO LOOP 2A COLD LEG CHECK VALVE) WITH A DIFFERENT DESIGN OF CHECK VALVE	4/18/2015	2-14-038
3	REPLACEMENT	FLANGE	REPLACED BLIND FLANGE AND ADD FASTENERS	1/14/2015	2-14-040

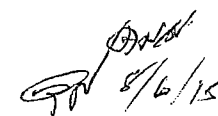


TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE

2RE17  
April 2015


CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-041
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2114-09VP UPSTREAM OF THE "A" TRAIN CCW PUMP SUPPLEMENTAL COOLER 21A ECW RETURN THROTTLE VALVE (3R282TEW0031) BEGINNING AT WELD# FW00094 TO FW# 00093	1/16/2015	2-14-042
3	REPLACEMENT	VALVE	REPLACED BALL/SEAT ASSEMBLY	1/15/2015	2-14-043
3	REPLACEMENT	VALVE	REPLACED TEW1002 ESSENTIAL CHILLER 22A ECW RETURN VALVE WITH A STAINLESS STEEL VALVE	1/15/2015	2-14-044
3	REPLACEMENT	PIPING	REPLACED PIPING COMPONENT EW-2405-02P ON LINE EW-2405 BEGINNING AT FW# 0001 TO FW# 0002	1/15/2015	2-14-045
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2201-UB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0210B) VIA WELDOLET FITTING TO EXISTING LINE NO. 12"SI-2201-UB2 AT SPOOL SI-2101-P IAW DCN 1402354	5/01/2015	2-14-047
2	REPLACEMENT	PIPING/FLEX MOD RCS MAKE-UP SI SYSTEM	INSTALL NEW ASME CL. 2 PIPING; LINE NO. 3"SI-2206-DB2* (INCLUDING NEW 3" ISOLATION GATE VALVE 2-SI-0211B) VIA WELDOLET FITTING TO EXISTING LINE NO. 6"SI-2206-DB2 AT SPOOL SI-2206-F IAW DCN 1402355	5/01/2015	2-14-048

APR 11  
SD  
5/6/15

TABLE 2 REV. 1

ABSTRACT OF REPAIRS/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE2RE17  
April 2015

CODE CLASS	CORRECTIVE MEASURE	ITEM DESCRIPTION	DESCRIPTION OF WORK	DATE COMPLETED	REPAIR/REPLACEMENT PLAN NUMBER
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW ASME CL. 3 PIPING; LINE NO. 3"AF-2077WB3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0100 VIA ADDITION OF 8" X 3" WOL TO EXISTING SPOOL AF-2077-E AS SHOWN PER DCN 1401802 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-049
3	REPLACEMENT	PIPING/FLEX MOD SG MAKEUP AF SYSTEM	INSTALL NEW FLEX PUMP DISCHARGE LINE NO. 3"AF-2014GA3 INCLUDING NEW 3" ISOLATION VALVE 2-AF-0101 VIA ADDITION OF 4" X 3" WOL TO EXISTING SPOOL AF-2014-E AS SHOWN PER DCN 1401803 OF DCP 12-11658-24, SUPP.1	4/30/2015	2-14-050
2	REPLACEMENT	VALVE	REPLACED(A2FWFV7141) STEAM GENERATOR 2A ORC FEEDWATER ISOLATION VALVE ORFICE PLATE	4/24/2015	2-15-002
3	REPLACEMENT	GASKET	REPLACED INTERCOOLER COVER GASKET	1/21/2015	2-15-003
3	REPLACEMENT	VALVE	REPLACED ECW TRAIN 2B DISCHARGE CHECK VALVE 2-EW-0042 WITH ROTATING SPARE CHECK VALVE	3/19/2015	2-15-007
2	REPAIR	VALVE	RETAINING RING WAS SEAL WELDED AND VALVE REASSEMBLED	4/10/2015	2-15-012
3	REPLACEMENT	STUD	REPLACED FLANGE FASTENERS FOR 2"/3" CC-2503-CA3	4/27/2015	2-15-013
1	REPLACEMENT	SUPPORT	REPLACED VARIABLE SPRING HANGER RC2422HL5016 LOCATED ON U2 D-LOOP 4 " PRESSURIZER SPRAY LINE RC-2422-BB1	4/22/2015	2-15-014

  
 3/6/15