



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

March 24, 2016  
NOC-AE-16003355  
10 CFR 50.55(a)

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 – 1RE19

Attached are four copies of the South Texas Project Unit 1 summary report for inservice inspections performed prior to and during scheduled refueling outage 1RE19 completed in December 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 James Williams at (361) 972-7179 or me at (361) 972-7030.

A handwritten signature in black ink, appearing to read "m j Berg".

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

web

A047

Attachment: Summary Report For 1RE19 Inservice Inspection Of Unit 1 South Texas Project  
Electric Generating Station (4 copies)

STI: 34293148

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  
Chris O'Hara  
Jim von Suskil  
Skip Zahn

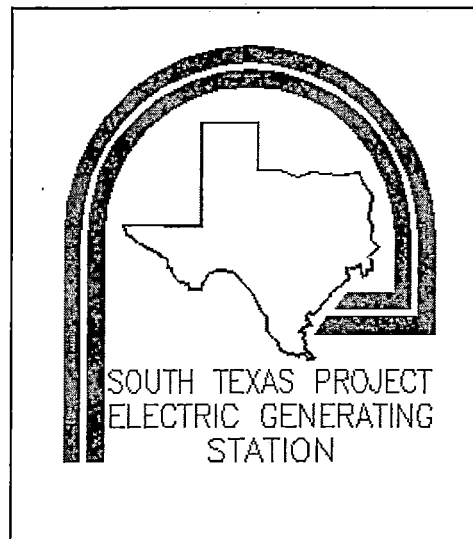
CPS Energy  
Kevin Pollo  
Cris Eugster  
L.D. Blaylock

Crain Caton & James, P.C.  
Peter Nemeth

City of Austin  
Elaina Ball  
John Wester

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

**SUMMARY REPORT  
For  
1RE19  
INSERVICE INSPECTION  
Of  
UNIT 1  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

10/17/2015-12/25/2015

*Handwritten:*  
3/24/16

COVER SHEET

1RE19 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

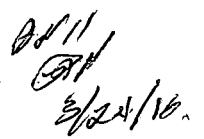
COMMERCIAL OPERATION DATE: AUGUST 25, 1988

Prepared by:   
J. Williams, ISI Program Engineer

Date 22 MAR 16

Reviewed by:   
B. Migl, Supervisor, /Testing Programs

Date 3/22/16

  
3/24/16

## SCOPE

### **COMPONENT SUPPORTS, REPAIR/REPLACEMENT ACTIVITIES, SYSTEM PRESSURE TESTS, STEAM GENERATOR TUBING, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWF)**

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 1, third ten-year interval (09/25/2010-09/24/2020), second period (09/25/2013-09/24/2017). 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.

*Handwritten:*  
3/24/16

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

Report Number OAR-1RE19

Plant South Texas Project Electric Generating Station

Unit No. 1 Commercial service date August 25, 1988 Refueling outage no. 1RE19  
(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 - 2<sup>nd</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 Revision 7 Effective date: 10/8/2012. Supplement 1 Effective date: 7/18/2013 Supplement 2 Effective date: 4/2/2014

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-729-1, N-770-1, 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 1RE19 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date: March 22, 2016  
(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.

[Signature] Commissions TEX 756  
Inspector's Signature National Board, State, Province, and Endorsements  
Date 3/24/2016

BAT  
ON  
3/24/16

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
REQUIRE EVALUATION FOR CONTINUED SERVICE1RE19  
FALL 2015

| Examination Category | Item Number | Item Description  | Evaluation Description  |
|----------------------|-------------|---|---|
| B-Q                  | B16.20      | CR 15-24440-Eddy current examination identified a possible volumetric indication in the steam generator 1d tube row 30 column 78 (D-R30C78) at about 0.2 to 0.3 inches above the hot leg tubesheet. | The indication could not be definitively tied to wear from a loose part. As a result, tube 1D-R30C78 was plugged by work order 512677, WAN 506226. Tube was plugged per ASME Section XI traveler 01-15-43 |
|                      |             |   |   |
|                      |             |   |   |
|                      |             |   |   |

## NOTES:

1. No items found with flaws or relevant conditions that required evaluation for continued service.
2. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 1RE19.

04/11  
04/11  
3/24/12

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description   | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|--------------------|---|----------------|--------------------------------|
| 3          | REPLACEMENT        | Valve              | REPLACED CHILLER 12B OUTLET THROTTLE VALVE (CH-VLV-0598)  | 10/21/2014     | 1 12 053                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED MECH SEALS/GLANDS AND BEARINGS.  | 11/06/2014     | 1 13 046                       |
| 3          | REPLACEMENT        | MECHANICAL SEAL    | REPLACE MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 1A (3R211NPA101A)  | 9/26/2014      | 1 13 047                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED 2 IN. ECW PIPING AND SPOOL EW-1314-A-A05 ON LINE 2"EW-1314-WT3   | 6/14/2014      | 1 14 012                       |
| 3          | REPLACEMENT        | STRAINER ASSY.     | REBUILT STRAINER, REPLACED BASKET ASSY AND BACKWASH ARM OF ECW SELF CLEANING STRAINER 1C 3R281NSP101C                                     | 6/13/2014      | 1 14 015                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED ESSENTIAL CHILLER 12B ECW RETURN VALVE 3R281TEW1004  | 10/21/2014     | 1 14 020                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 021                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 022                       |
| 3          | REPLACEMENT        | VALVE CAP          | REPLACE EXISTING STUD BOLTS AND NUTS AT VALVE CC-0014 WITH CAP SCREWS   | 12/9/2014      | 1 14 023                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED SEAL ON PUMP LUBE OIL CIRC PUMP 3Q151MPU0234   | 10/24/2014     | 1 14 024                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED DIESEL GENERATOR #11 ECW SUPPLY VALVE 3R281TEW0016   | 3/9/2015       | 1 14 027                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 3/9/2015       | 1 15 002                       |
| 2          | REPLACEMENT        | PIPING             | REPLACED SECTION OF 18" DIA. PIPE IN "C" TRAIN IVC  | 11/7/2015      | 1 15 004                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1C (1R131NPP101C)   | 11/16/2015     | 1 15 005                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1B(1R131NPP101B)  | 11/6/2015      | 1 15 006                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3450)   | 11/7/2015      | 1 15 011                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3451)   | 11/7/2015      | 1 15 012                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3452)   | 11/7/2015      | 1 15 013                       |
| III/3      | REPLACEMENT        | MECHANICAL SUPPORT | REPLACED MM SUPPORT PACKAGE (REACTOR COOLANT PUMP MOTOR NO 4 2R131NPP103D)  | 11/2/2015      | 1 15 014                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW 3" DIA. ASME CL. 2 FLEX PIPING AND NEW ISOLATION VALVE [2-CS-0060] VIA TIE-IN TO EXISTING LINE NO. 12"SI-1201-UB2.          | 11/10/2015     | 1 15 017                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1201-UB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N121TSI0210B /NEW FLEX PUMP SUCTION LINE | 11/10/2015     | 1 15 018                       |

9/11/16  
3/24/16



TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work  | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|--|----------------|--------------------------------|
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1206-DB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNs 2N122TSI0211B AND NEW 3" - 600# SPECTACLE INSERT BLIND TO SERVE AS NEW FLEX PUMP #16 DISCHARGE LINE IAW DCP 12-11658-74; REF: DCN 1401194. | 11/10/2015     | 1 15 019                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657A WITH UPGRADED BOLTED BONNET VALVE A1RCHV3657A  | 11/1/2015      | 1 15 021                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658A AIRCHV3658A  | 11/1/2015      | 1 15 022                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3658B  | 11/1/2015      | 1 15 023                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3657B  | 11/1/2015      | 1 15 024                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1101-UB2 VIA WELDOLET TIE-IN TO EXISTING 12"SI-1101-UB2 PER DCN 1401193 TO SERVE AS NEW FLEX PUMP #13 & #14 SUCTION LINE   | 11/10/2015     | 1 15 025                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1106-DB2 VIA WELDOLET TIE-IN TO EXISTING 6"SI-1106-DB2 PER DCN 1401194 TO SERVE AS NEW FLEX PUMP #13 & #14 DISCHARGE LINE  | 11/10/2015     | 1 15 026                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED RCP 1B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS (REACTOR COOLANT PUMP 1B IR131NPP101B)  | 11/3/2015      | 1 15 027                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW FLEX PIPING; LINE NO. 3"AF-1077-WB3 WITH NEW ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #11 SUCTION LINE  | 11/10/2015     | 1 15 029                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"AF-1047-GA3 WITH NEW ISOLATION VALVE 1-AF-0104 TO SERVE AS NEW FLEX PUMP #11 DISCHARGE LINE.  | 11/11/2015     | 1 15 030                       |
| 3          | REPLACEMENT        | PIPING           | REPLACED COMPONENT EW-1407-02P, SPOOL PIECE EW-1407-A1-A03. PIPE SECTION IS APPROXIMATELY 2-FT IN LENGTH AND LOCATED DOWN STREAM OF ECW PUMP 1B (3R281NPA101B)   | 7/1/2015       | 1 15 031                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1077-WB3 WITH NEW 3" ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #12 SUCTION LINE   | 11/10/2015     | 1 15 032                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1014-GA3 WITH NEW ISOLATION VALVE 1-AF-0101 TO SERVE AS NEW FLEX PUMP #12 DISCHARGE LINE  | 11/11/2015     | 1 15 033                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED DAMAGED PRIMARY MANWAY FASTENERS  | 11/9/2015      | 1 15 039                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/9/2015      | 1 15 041                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/10/2015     | 1 15 043                       |
| 2          | REPLACEMENT        | SNUBBER          | REPLACED HYDRAULIC SNUBBER   | 11/11/2015     | 1 15 045                       |
| 1          | REPAIR             | HATCH            | REINSTALLED HATCH TO SECODARY MOISTURE SEPARATOR ASSY  | 11/8/2015      | 1 15 047                       |
| 1(NF)      | REPLACEMENT        | SNUBBER          | REPLACED MECHANICAL SNUBBER S/N 446, MODEL AD151, HANGER RC1000SS0001  | 11/7/2015      | 1 15 053                       |

AN/1  
BN  
3/24/15

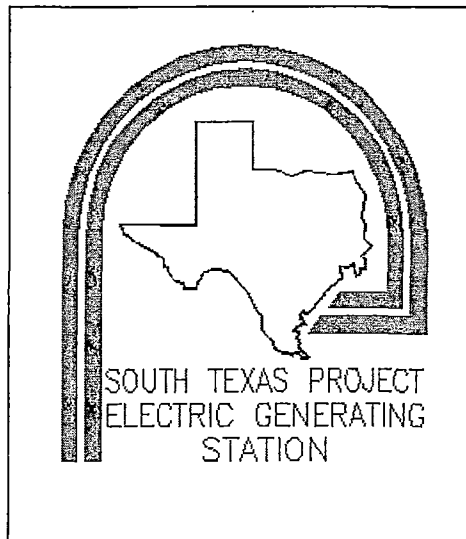
TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|---|----------------|--------------------------------|
| 2          | REPLACEMENT        | SEAL CAP         | REPLACED SEAL CAP   | 12/18/2015     | 1 15 064                       |
| 2          | REPAIR             | VALVE            | SEAL WELDED PIPE CAP ON LOOP 1A PRIMARY SAMPLE VALVE (2R141TRC0056) | 12/18/2015     | 1 15 065                       |

\*Repair Replacement Activities 1-13-027 and 1-15-052 were removed from Abstract table March 24, 2016.

AN  
3/24/16

**SUMMARY REPORT  
For  
1RE19  
INSERVICE INSPECTION  
Of  
UNIT 1  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

10/17/2015-12/25/2015

*Handwritten:*  
3/24/16

COVER SHEET

1RE19 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

P.O. BOX 289

WADSWORTH, TEXAS 77483

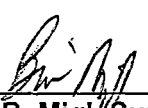
USNRC DOCKET NO: 50-498

OPERATING LICENSE NO: NPF-78

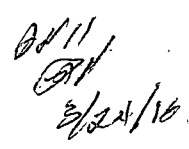
COMMERCIAL OPERATION DATE: AUGUST 25, 1988

Prepared by:   
J. Williams, ISI Program Engineer

Date 22 MAR 16

Reviewed by:   
B. Migl, Supervisor, /Testing Programs

Date 3/22/16

  
3/24/16

## SCOPE

### **COMPONENT SUPPORTS, REPAIR/REPLACEMENT ACTIVITIES, SYSTEM PRESSURE TESTS, STEAM GENERATOR TUBING, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWF)**

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 1, third ten-year interval (09/25/2010-09/24/2020), second period (09/25/2013-09/24/2017). 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.

AWB  
3/24/16

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

Report Number OAR-1RE19

Plant South Texas Project Electric Generating Station

Unit No. 1 Commercial service date August 25, 1988 Refueling outage no. 1RE19  
(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 - 2<sup>nd</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 Revision 7 Effective date: 10/8/2012. Supplement 1 Effective date: 7/18/2013 Supplement 2 Effective date: 4/2/2014

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-729-1, N-770-1, 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 1RE19 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date: March 22, 2016  
(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.

[Signature] Commissions TEX 756  
Inspector's Signature National Board, State, Province, and Endorsements  
B. NEWMAN  
Date 3/24/2016

BAI  
BN  
3/24/16

TABLE 1

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

1RE19  
FALL 2015

| Examination Category | Item Number | Item Description  | Evaluation Description  |
|----------------------|-------------|---|---|
| B-Q                  | B16.20      | CR 15-24440-Eddy current examination identified a possible volumetric indication in the steam generator 1d tube row 30 column 78 (D-R30C78) at about 0.2 to 0.3 inches above the hot leg tubesheet. | The indication could not be definitively tied to wear from a loose part. As a result, tube 1D-R30C78 was plugged by work order 512677, WAN 506226. Tube was plugged per ASME Section XI traveler 01-15-43 |
|                      |             |   |   |
|                      |             |   |   |
|                      |             |   |   |

## NOTES:

1. No items found with flaws or relevant conditions that required evaluation for continued service.
2. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 1RE19.

02/11  
02/11  
3/24/12

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description   | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|--------------------|---|----------------|--------------------------------|
| 3          | REPLACEMENT        | Valve              | REPLACED CHILLER 12B OUTLET THROTTLE VALVE (CH-VLV-0598)  | 10/21/2014     | 1 12 053                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED MECH SEALS/GLANDS AND BEARINGS.  | 11/06/2014     | 1 13 046                       |
| 3          | REPLACEMENT        | MECHANICAL SEAL    | REPLACE MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 1A (3R211NPA101A)  | 9/26/2014      | 1 13 047                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED 2 IN. ECW PIPING AND SPOOL EW-1314-A-A05 ON LINE 2"EW-1314-WT3   | 6/14/2014      | 1 14 012                       |
| 3          | REPLACEMENT        | STRAINER ASSY.     | REBUILT STRAINER, REPLACED BASKET ASSY AND BACKWASH ARM OF ECW SELF CLEANING STRAINER 1C 3R281NSP101C                                     | 6/13/2014      | 1 14 015                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED ESSENTIAL CHILLER 12B ECW RETURN VALVE 3R281TEW1004  | 10/21/2014     | 1 14 020                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 021                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 022                       |
| 3          | REPLACEMENT        | VALVE CAP          | REPLACE EXISTING STUD BOLTS AND NUTS AT VALVE CC-0014 WITH CAP SCREWS   | 12/9/2014      | 1 14 023                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED SEAL ON PUMP LUBE OIL CIRC PUMP 3Q151MPU0234   | 10/24/2014     | 1 14 024                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED DIESEL GENERATOR #11 ECW SUPPLY VALVE 3R281TEW0016   | 3/9/2015       | 1 14 027                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 3/9/2015       | 1 15 002                       |
| 2          | REPLACEMENT        | PIPING             | REPLACED SECTION OF 18" DIA. PIPE IN "C" TRAIN IVC  | 11/7/2015      | 1 15 004                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1C (1R131NPP101C)   | 11/16/2015     | 1 15 005                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1B(1R131NPP101B)  | 11/6/2015      | 1 15 006                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3450)   | 11/7/2015      | 1 15 011                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3451)   | 11/7/2015      | 1 15 012                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3452)   | 11/7/2015      | 1 15 013                       |
| III/3      | REPLACEMENT        | MECHANICAL SUPPORT | REPLACED MM SUPPORT PACKAGE (REACTOR COOLANT PUMP MOTOR NO 4 2R131NPP103D)  | 11/2/2015      | 1 15 014                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW 3" DIA. ASME CL. 2 FLEX PIPING AND NEW ISOLATION VALVE [2-CS-0060] VIA TIE-IN TO EXISTING LINE NO. 12"SI-1201-UB2.          | 11/10/2015     | 1 15 017                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1201-UB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N121TS10210B /NEW FLEX PUMP SUCTION LINE | 11/10/2015     | 1 15 018                       |

2011  
2014  
3/24/14



TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work  | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|--|----------------|--------------------------------|
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1206-DB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N122TS10211B AND NEW 3" - 600# SPECTACLE INSERT BLIND TO SERVE AS NEW FLEX PUMP #16 DISCHARGE LINE IAW DCP 12-11658-74; REF: DCN 1401194. | 11/10/2015     | 1 15 019                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657A WITH UPGRADED BOLTED BONNET VALVE A1RCHV3657A  | 11/1/2015      | 1 15 021                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658A A1RCHV3658A  | 11/1/2015      | 1 15 022                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3658B  | 11/1/2015      | 1 15 023                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3657B  | 11/1/2015      | 1 15 024                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1101-UB2 VIA WELDOLET TIE-IN TO EXISTING 12"SI-1101-UB2 PER DCN 1401193 TO SERVE AS NEW FLEX PUMP #13 & #14 SUCTION LINE   | 11/10/2015     | 1 15 025                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1106-DB2 VIA WELDOLET TIE-IN TO EXISTING 6"SI-1106-DB2 PER DCN 1401194 TO SERVE AS NEW FLEX PUMP #13 & #14 DISCHARGE LINE  | 11/10/2015     | 1 15 026                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED RCP 1B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS (REACTOR COOLANT PUMP 1B 1R131NPP101B)  | 11/3/2015      | 1 15 027                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW FLEX PIPING; LINE NO. 3"AF-1077-WB3 WITH NEW ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #11 SUCTION LINE  | 11/10/2015     | 1 15 029                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"AF-1047-GA3 WITH NEW ISOLATION VALVE 1-AF-0104 TO SERVE AS NEW FLEX PUMP #11 DISCHARGE LINE   | 11/11/2015     | 1 15 030                       |
| 3          | REPLACEMENT        | PIPING           | REPLACED COMPONENT EW-1407-02P, SPOOL PIECE EW-1407-A1-A03. PIPE SECTION IS APPROXIMATELY 2-FT IN LENGTH AND LOCATED DOWN STREAM OF ECW PUMP 1B (3R281NPA101B)   | 7/1/2015       | 1 15 031                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1077-WB3 WITH NEW 3" ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #12 SUCTION LINE   | 11/10/2015     | 1 15 032                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1014-GA3 WITH NEW ISOLATION VALVE 1-AF-0101 TO SERVE AS NEW FLEX PUMP #12 DISCHARGE LINE  | 11/11/2015     | 1 15 033                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED DAMAGED PRIMARY MANWAY FASTENERS  | 11/9/2015      | 1 15 039                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/9/2015      | 1 15 041                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/10/2015     | 1 15 043                       |
| 2          | REPLACEMENT        | SNUBBER          | REPLACED HYDRAULIC SNUBBER   | 11/11/2015     | 1 15 045                       |
| 1          | REPAIR             | HATCH            | REINSTALLED HATCH TO SECODARY MOISTURE SEPARATOR ASSY  | 11/8/2015      | 1 15 047                       |
| 1(NF)      | REPLACEMENT        | SNUBBER          | REPLACED MECHANICAL SNUBBER S/N 446, MODEL AD151, HANGER RC1000SS0001  | 11/7/2015      | 1 15 053                       |

OK  
BN  
3/24/16

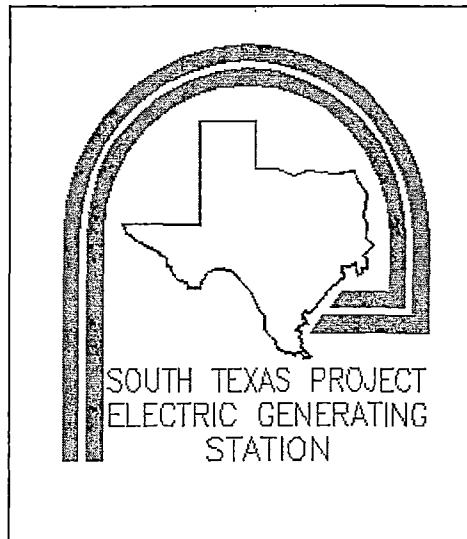
TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|---|----------------|--------------------------------|
| 2          | REPLACEMENT        | SEAL CAP         | REPLACED SEAL CAP   | 12/18/2015     | 1 15 064                       |
| 2          | REPAIR             | VALVE            | SEAL WELDED PIPE CAP ON LOOP 1A PRIMARY SAMPLE VALVE (2R141TRC0056) | 12/18/2015     | 1 15 065                       |

\*Repair Replacement Activities 1-13-027 and 1-15-052 were removed from Abstract table March 24, 2016.

AN  
3/22/16

**SUMMARY REPORT  
For  
1RE19  
INSERVICE INSPECTION  
Of  
UNIT 1  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

10/17/2015-12/25/2015

*Handwritten:*  
3/24/16

COVER SHEET

1RE19 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

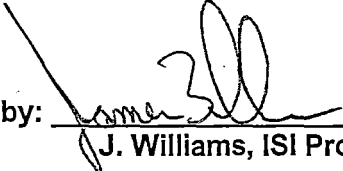
P.O. BOX 289

WADSWORTH, TEXAS 77483


USNRC DOCKET NO: 50-498

OPERATING LICENSE NO: NPF-78

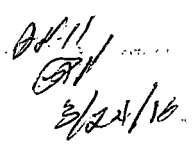
COMMERCIAL OPERATION DATE: AUGUST 25, 1988

Prepared by:   
J. Williams, ISI Program Engineer

Date 22 MAR 16

Reviewed by:   
B. Migl, Supervisor, /Testing Programs

Date 3/22/16

  
3/24/16

## SCOPE

### **COMPONENT SUPPORTS, REPAIR/REPLACEMENT ACTIVITIES, SYSTEM PRESSURE TESTS, STEAM GENERATOR TUBING, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWF)**

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 1, third ten-year interval (09/25/2010-09/24/2020), second period (09/25/2013-09/24/2017). 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.

AWA  
3/24/16

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

Report Number OAR-1RE19

Plant South Texas Project Electric Generating Station

Unit No. 1 Commercial service date August 25, 1988 Refueling outage no. 1RE19  
(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 - 2<sup>nd</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 Revision 7 Effective date: 10/8/2012. Supplement 1 Effective date: 7/18/2013 Supplement 2 Effective date: 4/2/2014

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-729-1, N-770-1, 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 1RE19 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date: March 22, 2016  
(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.

[Signature] Commissions TEX 756  
Inspector's Signature National Board, State, Province, and Endorsements  
Date 3/24/2016

0871  
ORN  
3/24/16

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
REQUIRE EVALUATION FOR CONTINUED SERVICE1RE19  
FALL 2015

| Examination Category | Item Number | Item Description  | Evaluation Description  |
|----------------------|-------------|---|---|
| B-Q                  | B16.20      | CR 15-24440-Eddy current examination identified a possible volumetric indication in the steam generator 1d tube row 30 column 78 (D-R30C78) at about 0.2 to 0.3 inches above the hot leg tubesheet. | The indication could not be definitively tied to wear from a loose part. As a result, tube 1D-R30C78 was plugged by work order 512677, WAN 506226. Tube was plugged per ASME Section XI traveler 01-15-43 |
|                      |             |   |   |
|                      |             |   |   |
|                      |             |   |   |

## NOTES:

1. No items found with flaws or relevant conditions that required evaluation for continued service.
2. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 1RE19.

04/11  
02/1  
3/24/16

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description   | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|--------------------|---|----------------|--------------------------------|
| 3          | REPLACEMENT        | Valve              | REPLACED CHILLER 12B OUTLET THROTTLE VALVE (CH-VLV-0598)  | 10/21/2014     | 1 12 053                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED MECH SEALS/GLANDS AND BEARINGS.  | 11/06/2014     | 1 13 046                       |
| 3          | REPLACEMENT        | MECHANICAL SEAL    | REPLACE MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 1A (3R211NPA101A)  | 9/26/2014      | 1 13 047                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED 2 IN. ECW PIPING AND SPOOL EW-1314-A-A05 ON LINE 2"EW-1314-WT3   | 6/14/2014      | 1 14 012                       |
| 3          | REPLACEMENT        | STRAINER ASSY.     | REBUILT STRAINER, REPLACED BASKET ASSY AND BACKWASH ARM OF ECW SELF CLEANING STRAINER 1C 3R281NSP101C                                     | 6/13/2014      | 1 14 015                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED ESSENTIAL CHILLER 12B ECW RETURN VALVE 3R281TEW1004  | 10/21/2014     | 1 14 020                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 021                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 022                       |
| 3          | REPLACEMENT        | VALVE CAP          | REPLACE EXISTING STUD BOLTS AND NUTS AT VALVE CC-0014 WITH CAP SCREWS   | 12/9/2014      | 1 14 023                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED SEAL ON PUMP LUBE OIL CIRC PUMP 3Q151MPU0234   | 10/24/2014     | 1 14 024                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED DIESEL GENERATOR #11 ECW SUPPLY VALVE 3R281TEW0016   | 3/9/2015       | 1 14 027                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 3/9/2015       | 1 15 002                       |
| 2          | REPLACEMENT        | PIPING             | REPLACED SECTION OF 18" DIA. PIPE IN "C" TRAIN IVC  | 11/7/2015      | 1 15 004                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1C (1R131NPP101C)   | 11/16/2015     | 1 15 005                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1B(1R131NPP101B)  | 11/6/2015      | 1 15 006                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3450)   | 11/7/2015      | 1 15 011                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3451)   | 11/7/2015      | 1 15 012                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3452)   | 11/7/2015      | 1 15 013                       |
| III/3      | REPLACEMENT        | MECHANICAL SUPPORT | REPLACED MM SUPPORT PACKAGE (REACTOR COOLANT PUMP MOTOR NO 4 2R131NPP103D)  | 11/2/2015      | 1 15 014                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW 3" DIA. ASME CL. 2 FLEX PIPING AND NEW ISOLATION VALVE [2-CS-0060] VIA TIE-IN TO EXISTING LINE NO. 12"SI-1201-UB2.          | 11/10/2015     | 1 15 017                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1201-UB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N121TSI0210B /NEW FLEX PUMP SUCTION LINE | 11/10/2015     | 1 15 018                       |

*Handwritten:*  
OK  
3/24/16



TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work  | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|--|----------------|--------------------------------|
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1206-DB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N122TSI0211B AND NEW 3" - 600# SPECTACLE INSERT BLIND TO SERVE AS NEW FLEX PUMP #16 DISCHARGE LINE IAW DCP 12-11658-74; REF: DCN 1401194. | 11/10/2015     | 1 15 019                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657A WITH UPGRADED BOLTED BONNET VALVE AIRCHV3657A  | 11/1/2015      | 1 15 021                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658A AIRCHV3658A  | 11/1/2015      | 1 15 022                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658B WITH UPGRADED BOLTED BONNET VALVE BIRCHV3658B  | 11/1/2015      | 1 15 023                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657B WITH UPGRADED BOLTED BONNET VALVE BIRCHV3657B  | 11/1/2015      | 1 15 024                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1101-UB2 VIA WELDOLET TIE-IN TO EXISTING 12"SI-1101-UB2 PER DCN 1401193 TO SERVE AS NEW FLEX PUMP #13 & #14 SUCTION LINE   | 11/10/2015     | 1 15 025                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1106-DB2 VIA WELDOLET TIE-IN TO EXISTING 6"SI-1106-DB2 PER DCN 1401194 TO SERVE AS NEW FLEX PUMP #13 & #14 DISCHARGE LINE  | 11/10/2015     | 1 15 026                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED RCP 1B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS (REACTOR COOLANT PUMP 1B 1R131NPP101B)  | 11/3/2015      | 1 15 027                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW FLEX PIPING; LINE NO. 3"AF-1077-WB3 WITH NEW ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #11 SUCTION LINE  | 11/10/2015     | 1 15 029                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"AF-1047-GA3 WITH NEW ISOLATION VALVE 1-AF-0104 TO SERVE AS NEW FLEX PUMP #11 DISCHARGE LINE.  | 11/11/2015     | 1 15 030                       |
| 3          | REPLACEMENT        | PIPING           | REPLACED COMPONENT EW-1407-02P, SPOOL PIECE EW-1407-A1-A03. PIPE SECTION IS APPROXIMATELY 2-FT IN LENGTH AND LOCATED DOWN STREAM OF ECW PUMP 1B (3R281NPA101B)   | 7/1/2015       | 1 15 031                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1077-WB3 WITH NEW 3" ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #12 SUCTION LINE   | 11/10/2015     | 1 15 032                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING: 3"AF-1014-GA3 WITH NEW ISOLATION VALVE 1-AF-0101 TO SERVE AS NEW FLEX PUMP #12 DISCHARGE LINE  | 11/11/2015     | 1 15 033                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED DAMAGED PRIMARY MANWAY FASTENERS  | 11/9/2015      | 1 15 039                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/9/2015      | 1 15 041                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/10/2015     | 1 15 043                       |
| 2          | REPLACEMENT        | SNUBBER          | REPLACED HYDRAULIC SNUBBER   | 11/11/2015     | 1 15 045                       |
| 1          | REPAIR             | HATCH            | REINSTALLED HATCH TO SECODARY MOISTURE SEPARATOR ASSY  | 11/8/2015      | 1 15 047                       |
| 1(NF)      | REPLACEMENT        | SNUBBER          | REPLACED MECHANICAL SNUBBER S/N 446, MODEL AD151, HANGER RC1000SS0001  | 11/7/2015      | 1 15 053                       |

OK  
BN  
3/24/15

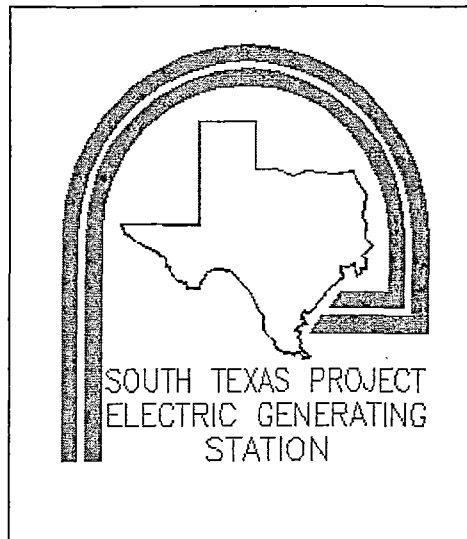
TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|---|----------------|--------------------------------|
| 2          | REPLACEMENT        | SEAL CAP         | REPLACED SEAL CAP   | 12/18/2015     | 1 15 064                       |
| 2          | REPAIR             | VALVE            | SEAL WELDED PIPE CAP ON LOOP 1A PRIMARY SAMPLE VALVE (2R141TRC0056) | 12/18/2015     | 1 15 065                       |

\*Repair Replacement Activities 1-13-027 and 1-15-052 were removed from Abstract table March 24, 2016.

AN/ *[signature]*  
3/24/16

**SUMMARY REPORT  
For  
1RE19  
INSERVICE INSPECTION  
Of  
UNIT 1  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**



**STP NUCLEAR OPERATING COMPANY**

10/17/2015-12/25/2015

*Handwritten:*  
3/24/16

COVER SHEET

1RE19 INSERVICE INSPECTION SUMMARY REPORT

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

P.O. BOX 289

WADSWORTH, TEXAS 77483

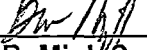
USNRC DOCKET NO: 50-498

OPERATING LICENSE NO: NPF-78

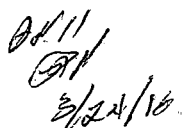
COMMERCIAL OPERATION DATE: AUGUST 25, 1988

Prepared by:   
J. Williams, ISI Program Engineer

Date 22 MAR 16

Reviewed by:   
B. Migl, Supervisor, /Testing Programs

Date 3/22/16

  
3/24/16

## SCOPE

### **COMPONENT SUPPORTS, REPAIR/REPLACEMENT ACTIVITIES, SYSTEM PRESSURE TESTS, STEAM GENERATOR TUBING, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWF)**

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 1, third ten-year interval (09/25/2010-09/24/2020), second period (09/25/2013-09/24/2017). 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.

AWB  
3/24/16

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

Report Number OAR-1RE19

Plant South Texas Project Electric Generating Station

Unit No. 1 Commercial service date August 25, 1988 Refueling outage no. 1RE19  
(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 - 2<sup>nd</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 Revision 7 Effective date: 10/8/2012. Supplement 1 Effective date: 7/18/2013 Supplement 2 Effective date: 4/2/2014

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-729-1, N-770-1, 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 1RE19 conform to the requirements of Section XI.  
(Refueling outage number)

Signed [Signature] ISI Program Engineer Date: March 22, 2016  
(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.

[Signature] Commissions TEX 756  
Inspector's Signature National Board, State, Province, and Endorsements  
B. NEMAN  
Date 3/24/2016

BAI  
ON  
3/24/16

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT  
REQUIRE EVALUATION FOR CONTINUED SERVICE1RE19  
FALL 2015

| Examination Category | Item Number | Item Description  | Evaluation Description  |
|----------------------|-------------|---|---|
| B-Q                  | B16.20      | CR 15-24440-Eddy current examination identified a possible volumetric indication in the steam generator 1d tube row 30 column 78 (D-R30C78) at about 0.2 to 0.3 inches above the hot leg tubesheet. | The indication could not be definitively tied to wear from a loose part. As a result, tube 1D-R30C78 was plugged by work order 512677, WAN 506226. Tube was plugged per ASME Section XI traveler 01-15-43 |
|                      |             |   |   |
|                      |             |   |   |
|                      |             |   |   |

## NOTES:

1. No items found with flaws or relevant conditions that required evaluation for continued service.
2. Surveillance procedure 0PSP11-RC-0015 Revision 17, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 1RE19.

0N11  
0N1  
3/24/16

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description   | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|--------------------|---|----------------|--------------------------------|
| 3          | REPLACEMENT        | Valve              | REPLACED CHILLER 12B OUTLET THROTTLE VALVE (CH-VLV-0598)  | 10/21/2014     | 1 12 053                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED MECH SEALS/GLANDS AND BEARINGS.  | 11/06/2014     | 1 13 046                       |
| 3          | REPLACEMENT        | MECHANICAL SEAL    | REPLACE MECHANICAL SEALS ON SPENT FUEL POOL COOLING PUMP 1A (3R211NPA101A)  | 9/26/2014      | 1 13 047                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED 2 IN. ECW PIPING AND SPOOL EW-1314-A-A05 ON LINE 2"EW-1314-WT3   | 6/14/2014      | 1 14 012                       |
| 3          | REPLACEMENT        | STRAINER ASSY.     | REBUILT STRAINER, REPLACED BASKET ASSY AND BACKWASH ARM OF ECW SELF CLEANING STRAINER 1C 3R281NSP101C                                     | 6/13/2014      | 1 14 015                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED ESSENTIAL CHILLER 12B ECW RETURN VALVE 3R281TEW1004  | 10/21/2014     | 1 14 020                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 021                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 9/17/2014      | 1 14 022                       |
| 3          | REPLACEMENT        | VALVE CAP          | REPLACE EXISTING STUD BOLTS AND NUTS AT VALVE CC-0014 WITH CAP SCREWS   | 12/9/2014      | 1 14 023                       |
| 3          | REPLACEMENT        | SEAL               | REPLACED SEAL ON PUMP LUBE OIL CIRC PUMP 3Q151MPU0234   | 10/24/2014     | 1 14 024                       |
| 3          | REPLACEMENT        | VALVE              | REPLACED DIESEL GENERATOR #11 ECW SUPPLY VALVE 3R281TEW0016   | 3/9/2015       | 1 14 027                       |
| 3          | REPLACEMENT        | PIPING             | REPLACED SECTION OF ECW TRAIN 1A PIPING 1EWSYSTEM   | 3/9/2015       | 1 15 002                       |
| 2          | REPLACEMENT        | PIPING             | REPLACED SECTION OF 18" DIA. PIPE IN "C" TRAIN IVC  | 11/7/2015      | 1 15 004                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1C (1R131NPP101C)   | 11/16/2015     | 1 15 005                       |
| 1          | REPLACEMENT        | PUMP SEAL          | REPLACED SEAL ON REACTOR COOLANT PUMP 1B(1R131NPP101B)  | 11/6/2015      | 1 15 006                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3450)   | 11/7/2015      | 1 15 011                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3451)   | 11/7/2015      | 1 15 012                       |
| 1          | REPLACEMENT        | VALVE              | REPLACED PRESSURIZER SAFETY VALVE WITH NEW OR REBUILT VALVE (N1RCPSV3452)   | 11/7/2015      | 1 15 013                       |
| III/3      | REPLACEMENT        | MECHANICAL SUPPORT | REPLACED MM SUPPORT PACKAGE (REACTOR COOLANT PUMP MOTOR NO 4 2R131NPP103D)  | 11/2/2015      | 1 15 014                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW 3" DIA. ASME CL. 2 FLEX PIPING AND NEW ISOLATION VALVE [2-CS-0060] VIA TIE-IN TO EXISTING LINE NO. 12"SI-1201-UB2.          | 11/10/2015     | 1 15 017                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD    | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1201-UB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N121TSI0210B /NEW FLEX PUMP SUCTION LINE | 11/10/2015     | 1 15 018                       |

*Handwritten:*  
OK  
3/24/16



TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work  | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|--|----------------|--------------------------------|
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW ASME CL. 2 PIPING; LINE NO. 3"SI-1206-DB2 ALONG WITH NEW 3" ISOLATION VALVE; TPNS 2N122TSI0211B AND NEW 3" - 600# SPECTACLE INSERT BLIND TO SERVE AS NEW FLEX PUMP #16 DISCHARGE LINE IAW DCP 12-11658-74; REF: DCN 1401194. | 11/10/2015     | 1 15 019                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657A WITH UPGRADED BOLTED BONNET VALVE A1RCHV3657A  | 11/1/2015      | 1 15 021                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658A A1RCHV3658A  | 11/1/2015      | 1 15 022                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3658B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3658B  | 11/1/2015      | 1 15 023                       |
| 1          | REPLACEMENT        | VALVE            | REPLACED HEAD VENT ISOLATION VALVE 1-HV-3657B WITH UPGRADED BOLTED BONNET VALVE B1RCHV3657B  | 11/1/2015      | 1 15 024                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1101-UB2 VIA WELDOLET TIE-IN TO EXISTING 12"SI-1101-UB2 PER DCN 1401193 TO SERVE AS NEW FLEX PUMP #13 & #14 SUCTION LINE   | 11/10/2015     | 1 15 025                       |
| 2          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"SI-1106-DB2 VIA WELDOLET TIE-IN TO EXISTING 6"SI-1106-DB2 PER DCN 1401194 TO SERVE AS NEW FLEX PUMP #13 & #14 DISCHARGE LINE  | 11/10/2015     | 1 15 026                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED RCP 1B SEAL HOUSING BOLTS WITH INCONEL STUDS AND NUTS (REACTOR COOLANT PUMP 1B 1R131NPP101B)  | 11/3/2015      | 1 15 027                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW FLEX PIPING; LINE NO. 3"AF-1077-WB3 WITH NEW ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #11 SUCTION LINE  | 11/10/2015     | 1 15 029                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; LINE NO. 3"AF-1047-GA3 WITH NEW ISOLATION VALVE 1-AF-0104 TO SERVE AS NEW FLEX PUMP #11 DISCHARGE LINE.  | 11/11/2015     | 1 15 030                       |
| 3          | REPLACEMENT        | PIPING           | REPLACED COMPONENT EW-1407-02P, SPOOL PIECE EW-1407-A1-A03. PIPE SECTION IS APPROXIMATELY 2-FT IN LENGTH AND LOCATED DOWN STREAM OF ECW PUMP 1B (3R281NPA101B)   | 7/1/2015       | 1 15 031                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING; 3"AF-1077-WB3 WITH NEW 3" ISOLATION VALVE 1-AF-0100 TO SERVE AS NEW FLEX PUMP #12 SUCTION LINE   | 11/10/2015     | 1 15 032                       |
| 3          | REPLACEMENT        | PIPING/FLEX MOD  | INSTALLED NEW PIPING: 3"AF-1014-GA3 WITH NEW ISOLATION VALVE 1-AF-0101 TO SERVE AS NEW FLEX PUMP #12 DISCHARGE LINE  | 11/11/2015     | 1 15 033                       |
| 1          | REPLACEMENT        | BOLTING          | REPLACED DAMAGED PRIMARY MANWAY FASTENERS  | 11/9/2015      | 1 15 039                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/9/2015      | 1 15 041                       |
| 1          | REPAIR             | PLUG             | INSTALLED MECHANICAL TUBE PLUGS TO DEGRADED S/G TUBES IDENTIFIED DURING 1RE19 EDDY CURRENT TESTING   | 11/10/2015     | 1 15 043                       |
| 2          | REPLACEMENT        | SNUBBER          | REPLACED HYDRAULIC SNUBBER   | 11/11/2015     | 1 15 045                       |
| 1          | REPAIR             | HATCH            | REINSTALLED HATCH TO SECONDARY MOISTURE SEPARATOR ASSY   | 11/8/2015      | 1 15 047                       |
| 1(NF)      | REPLACEMENT        | SNUBBER          | REPLACED MECHANICAL SNUBBER S/N 446, MODEL AD151, HANGER RC1000SS0001  | 11/7/2015      | 1 15 053                       |

OK  
BN  
3/24/12

TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES  
REQUIRED FOR CONTINUED SERVICE 1RE19  
FALL 2015

| Code Class | CORRECTIVE MEASURE | Item Description | Description of Work   | Date completed | Repair/Replacement Plan Number |
|------------|--------------------|------------------|---|----------------|--------------------------------|
| 2          | REPLACEMENT        | SEAL CAP         | REPLACED SEAL CAP   | 12/18/2015     | 1 15 064                       |
| 2          | REPAIR             | VALVE            | SEAL WELDED PIPE CAP ON LOOP 1A PRIMARY SAMPLE VALVE (2R141TRC0056) | 12/18/2015     | 1 15 065                       |

\*Repair Replacement Activities 1-13-027 and 1-15-052 were removed from Abstract table March 24, 2016.

DN  
3/23/16