



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

July 25, 2007

NOC-AE-07002195

File No: G25, T07.03

10 CFR 50.55a

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

South Texas Project  
Unit 2  
Docket No. STN 50-499  
Inservice Inspection Summary Report – 2RE12

Enclosed are four copies of the South Texas Project Unit 2 summary report for inservice inspections performed prior to and during the refueling outage 2RE12 completed in May, 2007. This summary report satisfies the reporting requirements of ASME Code Section XI, Article IWA-6230.

There are no commitments in this report.

If there are any questions, please contact either Philip L. Walker at (361) 972-8392 or me at (361) 972-7431.

Brandon Jenewein  
Manager,  
Testing/Programs

PLW

Enclosure: 2RE12 Inservice Inspection Summary Report for Component Supports, Containment Metal Liner (IWE), Repair and Replacement, Steam Generator Tubing, System Pressure Testing, Weld Inspection Programs, and Weld Alloy 600 Activities

STI No: 32187790

A047

HRR

cc:  
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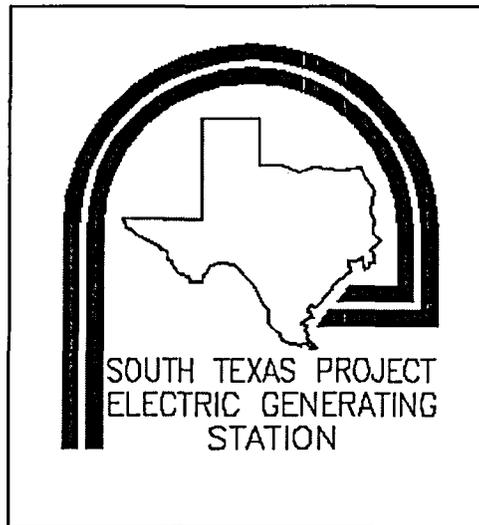
C. Kirksey  
City of Austin

Jon C. Wood  
Matthews & Branscomb

One copy of the attachment is provided.

**SUMMARY REPORT**  
**for the**  
**2RE12**  
**INSERVICE INSPECTION**  
**of**  
**UNIT 2**  
**SOUTH TEXAS PROJECT**  
**ELECTRIC GENERATING STATION**

**COMPONENT SUPPORTS, CONTAINMENT METAL LINER (IWE),**  
**REPAIR/REPLACEMENT, STEAM GENERATOR TUBING, SYSTEM**  
**PRESSURE TESTING AND WELD INSPECTION PROGRAMS AND**  
**ALLOY 600 ACTIVITIES**



**STP NUCLEAR OPERATING COMPANY**

May 2007

COVER SHEET

2RE12 INSERVICE INSPECTION SUMMARY REPORT FOR COMPONENT  
SUPPORTS, CONTAINMENT METAL LINER (IWE), REPAIR AND REPLACEMENT,  
STEAM GENERATOR TUBING, SYSTEM PRESSURE TESTING AND WELD  
INSPECTION PROGRAMS AND WELD ALLOY 600 ACTIVITIES

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. Stauber 5/10/07  
J. Stauber, Engineer

Reviewed by: C. Younger 22 July 2007  
C. Younger, Supervising Engineer

*Handwritten initials and date:*  
7/23/07

## SCOPE

### **COMPONENT SUPPORTS, REPAIR AND REPLACEMENT, STEAM GENERATOR TUBING, SYSTEM PRESSURE TESTS AND WELD INSPECTION PROGRAMS**

The examinations summarized in this report were performed in accordance with the 1989 Edition with no Addenda of the ASME Code, Section XI that is applicable to the South Texas Project, Unit 2, second ten-year interval (10/19/2000-10/18/2010), second period (10/19/2003-10/18/2007). This report covers selected ASME Code Class 1, 2 & 3 Systems/Components. This report is documented in accordance with the requirements of ASME Section XI Code Case N-532-1.

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.

The 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 Table 2500-1 of Code Case N-491-2.

### **CONTAINMENT METAL LINER (IWE/IWL)**

The Containment Metal Liner examinations summarized in this report were performed in accordance with the 1992 Edition 1992 Addenda of the ASME Code, Section XI, that is applicable to the South Texas Project, Unit 2, first ten-year interval (9/9/1998-9/8/2008), third period (9/9/05-9/8/08). 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-532-1.

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.

*Handwritten signature and date:*  
7/23/07

FORM OAR-1 OWNER'S ACTIVITY REPORT

(Code Case N-532-1)

Report Number OAR-2RE12

Owner STP Nuclear Operating Company, P. O. Box 289, Wadsworth, TX 77483  
(Name and Address of Owner)

Plant South Texas Project Electric Generating Station P.O. Box 289, Wadsworth, TX 77483  
(Name and Address of Plant)

Unit No. 2 Commercial service date June 19, 1989 Refueling outage no. 2RE12  
(If applicable)

Current inspection interval 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>, 4<sup>th</sup>, other)

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

Edition and Addenda of Section XI applicable to the 10 year inspection plan: 1989 Edition/ No Addenda (IWE-1992 Edition 1992 Addenda)

Date and revision of 10 year inspection plan September 6, 2006, Revision 3

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

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct, and that the examinations, tests, repairs, replacements, evaluations, and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. N/A Expiration Date N/A  
(if applicable)

Signed J. Mauler ENGINEER Date 5/6/07  
(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 Group Inc of Houston, Texas have inspected the items described in this Owner's Activity Report, during the period 10/19/2003 to 10/18/2007 for Component Supports, Repair And Replacement, Steam Generator Tubing, System Pressure Tests and Weld Inspection program, and during the period 9/9/2005 to 9/8/2008 for Containment Metal Liner program, 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 examinations, tests, repairs, replacements, evaluations, and corrective measures 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.

Robert Niemann Commissions TX 756  
Inspector's Signature National Board, State, Province, and Endorsements  
Robert Niemann

Date 7/23/07

TABLE 1

## ABSTRACT OF EXAMINATIONS AND TESTS

Interval 2 Period 2

2RE12

April 2007

COMPONENT SUPPORTS AND WELD INSPECTIONS, per WINISI Computerized Inservice Inspection Database

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
B-G-2	38	21	55.26	63.16	
B-M-2	15	9	60.00	60.00	
B-N-1	3	1	33.33	66.67	
C-C	25	11	44.00	60.00	
F-A	272	126	46.32	66.18	Component Supports
R-A-1	59	26	44.07	61.02	B-F & B-J *
R-A-2	7	2	28.57	57.14	C-F-1,C-F-2**
MRP	N/A	25	N/A	N/A	ALLOY 600 ***
MRP	N/A	12	N/A	N/A	ALLOY 600 ****
BMI	N/A	0	N/A	N/A	Bottom Head Inspection
THPENS	N/A	158	N/A	N/A	Top Head Inspection*****

NOTES: Period 2 = 2RE10, 2RE11 &amp; 2RE12

Period 2 Examination Completion Range = 50% - 67%

\* = Categories combined for Class 1 Risk Informed piping welds

\*\* = Categories combined for Class 2 Risk Informed piping welds

\*\*\* = During 2RE12 performed Bare Metal Visual (BMV) on 6 pressurizer nozzles &amp; 1 set of pressurizer heater sleeves prior to weld overlay. Performed (BMV) inspections of four Reactor Pressure Vessel outlet nozzle welds.

\*\*\*\* = During 2RE12 performed Baseline (PSI) inspections of all six Pressurizer Nozzles after weld overlay.

\*\*\*\*\* = During 2RE12 performed inspection of RPV top head penetrations - J groove weld and BMV of CRDMs.

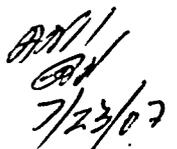

  
 7/23/07

TABLE 1A

ABSTRACT OF EXAMINATIONS AND TESTS

Interval 2 Period 2

2RE12

April 2007

SYSTEM PRESSURE TESTING INSPECTIONS, per WINISI Computerized Inservice Inspection Database

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
B-E	28	12	42.86	71.43*	
B-P	42	18	42.86	71.43*	
C-H	132	44	33.33	66.67	
D-A	12	4	33.33	66.67	
D-B	12	4	33.33	66.67	
D-C	3	1	33.33	66.67	

NOTES: Period 2 = 2RE10, 2RE11 & 2RE12

Period 2 Examination Completion Range = 50% - 67%

\* = Percent credited is greater than 67% because of three outages in period – RC system pressure test required each outage.

TABLE 1B

ABSTRACT OF EXAMINATIONS AND TESTS

Interval 2 Period 2

2RE12

April 2007

STEAM GENERATOR TUBING

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
B-Q	8	4	50.00	100.00	

NOTES: Period 2 = 2RE10, 2RE11 & 2RE12

Period 2 Examination Completion Range = 50% - 67%

No Steam Generator Tube inspections were performed during 2RE12

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 7/23/07

TABLE 1C

ABSTRACT OF EXAMINATIONS AND TESTS  
 Interval 1 Period 3  
 2RE12  
 April 2007  
CONTAINMENT METAL LINER (IWE)

Examination Category	Total Examinations Required for The Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) For The Period	Total Examinations Credited (%) To Date for The Interval	Remarks
E-A	36	16	25.93	94.44	9 exams were end of interval exams and not credited to the Period. See Note 2
E-D	3	1	33.33	100.00	
E-G	131	97	74.05	100.00	
AP-J	84	28	33.33	100.00	

NOTES:

1. Period 3 = 2RE11, 2RE12
2. 2 of 9 exams for Period 3 will be completed online prior to end of the interval to achieve full coverage.

Period 3 Examination Completion Range = 50 - 100%

End of first 10 year interval

TABLE 2

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

2RE12  
 April 2007

Examination Category	Items Number	Item Description	Flaw Characterization (IWA-3300)	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
		See Note 1		

NOTES:

1. No items found with flaws or relevant conditions that required evaluation for continued service.
2. Surveillance procedure OPSP11-RC-0015, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 1RE13.

*AM11*  
*AW*  
 7/23/07

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES  
REQUIRED FOR CONTINUED SERVICE

2RE12  
April 2007

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date completed	Repair/Replacement Plan Number
3	Replacement	Valve	Ball replacement	No	02/14/07	2-4-07
3	Replacement	Valve	Valve replacement	No	02/14/07	2-4-63
3	Replacement	Valve	Valve replacement	No	02/14/07	2-5-51
3	Replacement	Valve	Valve replacement	No	02/14/07	2-5-53
3	Repair	Pump	Drilling reaming of bearing housing taper pin holes	No	02/14/07	2-5-56
3	Replacement	Pump	Pump replacement	No	2/14/07	2-6-06
3	Replacement	Valve	Ball Assembly replacement	No	2/14/07	2-6-09
3	Repair	Motor cooler	Machined flange gasket surface	No	2/14/07	2-6-10
3	Repair	Piping	Replaced ECW pipe	No	3/20/07	2-6-11
3	Repair	Piping	Replaced ECW pipe & elbow	No	5/3/07	2-6-12
3	Replacement	Valve	Valve replacement	No	4/19/07	2-6-14
3	Repair	Pipe Support	Remove/reinstall support	No	3/20/07	2-6-17
2	Replacement	Valve	Replaced disc	No	5/7/07	2-6-22
2	Replacement	Valve	Replaced disc	No	5/7/07	2-6-23
2	Replacement	Valve	Replaced disc	No	5/7/07	2-6-24
2	Replacement	Valve	Replaced disc	No	5/7/07	2-6-25
2	Repair	Valve	Valve replacement	No	5/8/07	2-6-28
2	Replacement	Valve	Replaced valve stem	No	5/7/07	2-6-31
2	Repair	Valve	Machining of valve parts	No	5/7/07	2-6-33
1	Replacement	Pump	Replaced RCP cartridge seal housing	No	5/7/07	2-6-34
3	Replacement	Piping	Replaced flange fasteners	No	4/20/07	2-6-38
3	Replacement	Piping	Replaced flange fasteners	No	4/20/07	2-6-39
3	Replacement	Pump	Replaced gland studs & nuts	No	3/20/07	2-6-40
2	Replacement	Valve	Valve replacement	No	4/19/07	2-6-42
1	Replacement	Valve	Replaced Valve & flange studs/nuts	No	5/7/07	2-6-44

*PH/AN*  
*7/25/07*

ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES  
REQUIRED FOR CONTINUED SERVICE

2RE12

April 2007

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date completed	Repair/Replacement Plan Number
1	Replacement	Valve	Valve replacement & flange studs/nuts	No	5/7/07	2-6-45
1	Replacement	Valve	Valve replacement & flange studs/nuts	No	5/7/07	2-6-46
3	Repair	Piping	Replaced ECW pipe & tee	No	5/3/07	2-6-50
3	Replacement	Valve	Replaced disc plates & hinge pin retainer	No	4/19/07	2-7-02
3	Replacement	Valve	Valve replacement	No	4/20/07	2-7-04
2	Repair	Valve	Valve replacement	No	5/07/07	2-7-05
3	Replacement	Valve	Replaced valve disc	No	5/3/07	2-7-07
2	Replacement	Valve	Replaced valve disc	No	5/7/07	2-7-09
2	Repair	Valve	Replaced valve plug	No	5/8/07	2-7-12
1	Repair	Pressurizer	Performed weld overlay on surge nozzle & lug removal	No	5/7/07	2-7-15
1	Repair	Pressurizer	Performed weld overlay on upper nozzles	No	5/7/07	2-7-16
1	Repair	Pressurizer	Removed Code plate & transferred info	No	5/7/07	2-7-17
2	Replacement	Valve	Replaced valve disc & yoke	No	4/20/07	2-7-18
2	Replacement	Valve	Valve replacement	No	5/8/07	2-7-19
2	Repair	Valve	Replaced valve seal leak off plug & seal welded	No	5/7/07	2-7-21
2	Repair	Valve	Replaced valve plug	No	5/8/07	2-7-22
2	Repair	Valve	Replaced valve plug	No	5/8/07	2-7-23
1	Repair	Pipe Support	Performed weld build up of spring can housing	No	5/7/07	2-7-25
1	Replacement	Pipe Support	Replaced spring can	No	5/7/07	2-7-27
2	Replacement	Snubber	Replaced snubber	No	5/2/07	2-7-28
2	Replacement	Valve	Replaced valve disc	No	5/2/07	2-7-29
3	Replacement	Motor Coolers	Replaced motor coolers	No	5/8/07	2-7-32
1	Replacement	RPV	Replaced ROTO-LOK stud	No	5/8/07	2-7-33
MC	Replacement	Equipment Hatch	Replaced Swing bolt	No	5/7/07	2-7-34

*AMH*  
*5/23/07*

ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES  
 REQUIRED FOR CONTINUED SERVICE

2RE12  
 April 2007

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes/No)	Date completed	Repair/Replacement Plan Number
3	Replacement	Piping	Replaced flange fasteners	No	5/2/07	2-7-35
2	Replacement	Valve	Replaced valve plug	No	5/7/07	2-7-36
1	Repair	CRDM	Removed Code plate & transferred info	No	5/7/07	2-7-37
1	Repair	CRDM	Installed canopy seal clamp assembly	No	5/7/07	2-7-39
2	Repair	Valve	Machined valve bonnet	No	5/7/07	2-7-40

*APR 11 7/23/07*