



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

January 20, 2009  
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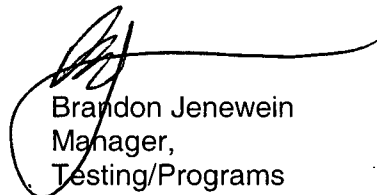
U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

South Texas Project  
Unit 2  
Docket No. STN 50-499  
Inservice Inspection Summary Report – 2RE13

Attached are four copies of the South Texas Project Unit 2 summary report for inservice inspections performed prior to and during refueling outage 2RE13 completed in November, 2008. 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

Attachment: 2RE13 Inservice Inspection Summary Report for Component Supports, Repair and Replacement, System Pressure Tests, Weld Inspections (IWB, IWC, IWD, IWF), and Containment Metal Liner (IWE)

STI No: 32421128

A047  
NRR

cc:

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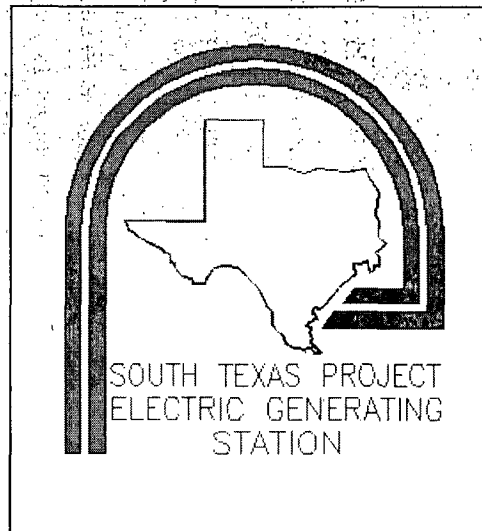
C. Kirksey  
City of Austin

Jon C. Wood  
Cox Smith Matthews

One copy of the attachment is provided.

**SUMMARY REPORT  
for the  
2RE13  
INSERVICE INSPECTION  
of  
UNIT 2  
SOUTH TEXAS PROJECT  
ELECTRIC GENERATING STATION**

**COMPONENT SUPPORTS, REPAIR AND REPLACEMENT, SYSTEM PRESSURE  
TESTS, WELD INSPECTIONS (IWB, IWC, IWD, IWF), AND  
CONTAINMENT METAL LINER (IWE)**



**STP NUCLEAR OPERATING COMPANY**

December 2008

**COVER SHEET**

**2RE13 INSERVICE INSPECTION SUMMARY REPORT**  
**COMPONENT SUPPORTS, REPAIR AND REPLACEMENT, SYSTEM PRESSURE**  
**TESTS, WELD INSPECTIONS (IWB, IWC, IWD, IWF), AND**  
**CONTAINMENT METAL LINER (IWE)**

**SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 2**

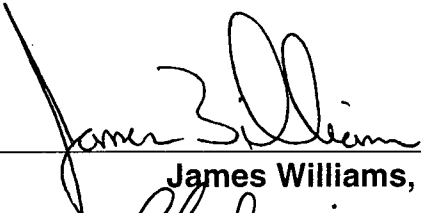
**P.O. BOX 289**

**WADSWORTH, TEXAS 77483**

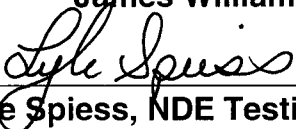
**USNRC DOCKET NO: 50-499**

**OPERATING LICENSE NO: NPF-80**

**COMMERCIAL OPERATION DATE: JUNE 19, 1989**

Prepared by: 

**James Williams, Engineer**

Reviewed by: 

**Lyle Spiess, NDE Testing Supervisor**

## **SCOPE**

### **COMPONENT SUPPORTS, REPAIR AND REPLACEMENT, SYSTEM PRESSURE TESTS, AND WELD INSPECTION PROGRAMS (IWB, IWC, IWD, IWF)**

The examinations summarized in this report were performed in accordance with the 1989 Edition with no Addenda of the ASME Code, Section XI, which is applicable to the South Texas Project, Unit 2, second ten-year interval (10/19/2000-10/18/2010), third period (10/19/2007-10/18/2010). This report covers selected ASME Code Class 1, 2, and 3 systems and components, and component supports. The results are documented in accordance with the requirements of ASME Section XI Code Case N-532-4. Table 1 lists the relevant indications found and their disposition. Table 2 lists those systems and components for which repair or replacement was done.

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 and components. IWC-2412 is applied to ASME Code Class 2 systems and components, IWD-2412 to ASME Code Class 3 systems and components, and IWF-2412 to component supports.

ASME Code Class 1 components are examined as prescribed by Table IWB-2500-1 and the applicable Examination Categories, which established the examination frequency at each refueling outage. ASME Code Class 2 systems and components are examined in accordance with Table IWC-2500-1, Examination Categories. ASME Code Class 3 systems and components are examined in accordance with Table IWD-2500-1, Examination Categories. Component Supports (Subsection IWF) are examined in accordance with Table 2500-1 of Code Case N-491-2.

No relevant indications were found by Augmented Inservice Inspection of Reactor Coolant Pump flywheels in accordance with Regulatory Guide 1.14.

Examination of Break Exclusion Zone piping in accordance with SRP 3.6.1: Circumferential Welds found no relevant indications.

Risk-informed Inservice Inspection under ASME Section XI Code Case N-560 was applied to Class 1, Category B-J non-socket-welded locations in accordance with relief request RR-ENG-2-16 (December 30, 1999) (ML003676903). A risk-based approach was also applied to Class 1 socket-welded piping (Category B-J) and Class 2 piping weld (Categories C-F-1 and C-F-2) inspection as described in relief request RR-ENG-2-23 (February 27, 2001) (ML010650285). No relevant indications were found.

The Reactor Pressure Vessel Upper Head was examined pursuant to Revision 1 of NRC Order EA-03-009 in accordance with Paragraph IV.C(5)(a) of the Order. The inspection identified no relevant conditions, evidence of cracks, leakage, or wastage.

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

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, which is applicable to the South Texas Project, Unit 2, first ten-year interval (09/09/1998-09/08/2009), third period (09/09/05-09/08/09). This report covers selected ASME Code Class MC Components. No relevant indications were found.

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 and MC Components. The Containment Metal Liner components were examined in accordance with Table IWE-2500-1, Examination Categories.

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

Report Number OAR-2RE13

Plant South Texas Project Electric Generating Station

Unit No. 2 Commercial service date JUNE 19, 1989 Refueling outage no. 2RE13  
(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 - 3<sup>rd</sup>; IWE - 3<sup>rd</sup>  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)

Edition and Addenda of Section XI applicable to the inspection plan 1989 No Addenda for IWB, IWC, IWD, IWF and 1992 Edition 1992 Addenda for IWE

Date and revision of inspection plan September 2008 / Revision 4

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

Code Cases used: N-435-1, N-568, N-627, N-307-3, N-532-4, N-491-2, N-652-1, N-460

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 2RE13 conform to the requirements of Section XI.  
(Refueling outage number)

Signed J. Stanley  
(Owner or Owner's Designee, Title)

Date 12/10/08

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 57-756

National Board, State, Province, and Endorsements

Date 12/10/08

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

2RE13  
October 2008

Examination Category	Item Number	Item Description	Evaluation Description
F-A	F1.30	Component Support ASME Class 3 EW-2188-HL5007	CR 08-16072 Corroded Bolts Repair/Replacement required.
F-A	F1.10B	Component Support Spring Can ASME Class 1 CV-2000-HL5001	CR 08-15631 Out-of-tolerance load reading Repair/Replacement required.
F-A	F1.10B	Component Support Spring Can ASME Class 1 RC-2000-SH02	CR 08-15631 Out-of-tolerance load reading Repair/Replacement required.
F-A	F1.10B	Component Support Spring Can ASME Class 1 RC-2320-HL5003	CR 08-14960 Out of Plate Range Repair/Replacement required.
C-C	C3.30	RHR Pump 2A Integrally Welded Attachment	CR 08-15937 Flaw indication. Table IWB-3514-2 states flaw length of 1/8" is allowable per code.

NOTES:

1. Surveillance procedure 0PSP11-RC-0015, ASME Section XI Inservice Inspection, documents Inservice Inspection activities during 2RE13.

TABLE 2

ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

2RE13

October 2008

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
3	Replacement	Valve	Replaced valve bonnet bolting studs/nuts	10/11/2007	2-5-004
3	Repair	Valve	Tack-welded disk guides	10/11/2007	2-5-006
1	Replacement	Valve	Replaced valve seat	10/23/2008	2-6-041
3	Replacement	Valve	Replaced valve plug	06/19/2007	2-7-008
2	Replacement	Valve	Replaced valve internal parts (nozzle, disc, spindle)	02/04/2008	2-7-038
3	Replacement	Valve	Replaced valve disc.	05/15/2007	2-7-045
2	Repair	Valve	Replaced valve and attached piping	06/06/2007	2-7-046
3	Replacement	Valve	Replaced valve plug	10/24/2008	2-7-047
2	Replacement	Valve	Replaced flange studs and nuts	10/20/2008	2-7-049
2	Replacement	Valve	Replaced valve	01/10/2008	2-7-050
3	Replacement	Valve	Replaced valve	09/16/2008	2-7-053
3	Replacement	Valve	Replaced valve seat retainer	09/17/2008	2-7-054
3	Replacement	Valve	Replaced valve ball assembly	09/16/2008	2-7-056
3	Replacement	Piping	Replaced flange studs and nuts	10/27/2007	2-7-058
1	Repair	RPV Stud	Dressed stud sharp edges – spare RPV stud	01/17/2008	2-7-059
2	Repair	Valve	Seal welded stuffing box port plug	10/21/2008	2-8-006
2	Repair	Valve	Replaced valve	10/21/2008	2-8-015
2	Repair	Valve	Replaced valve	10/16/2008	2-8-016
1	Repair	Valve	Replaced valve bonnet studs	10/29/2008	2-8-021
1	Replacement	Pump	Replaced RCP cartridge seal housing	10/22/2008	2-8-023
1	Replacement	Pipe Support	Replaced pipe support	10/28/2008	2-8-025
1	Replacement	Valve	Replaced pressurizer safety valve	10/24/2008	2-8-027
1	Replacement	Valve	Replaced pressurizer safety valve	10/24/2008	2-8-028
3	Repair	Valve	Machined check valve plates	10/17/2008	2-8-031
2	Repair	Pipe Support	Replaced pipe support and tube sheet	10/23/2008	2-8-033
3	Replacement	Valve	Replaced valve ball assembly	10/17/2008	2-8-035
3	Repair	Piping	Replaced piping because of wall thinning	09/17/2008	2-8-037
2	Replacement	Valve	Replaced valve plug	08/22/2008	2-8-038
3	Repair	Piping	Replaced piping because of wall thinning	10/18/2008	2-8-039



TABLE 2 (continued)

ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE

2RE13

October 2008

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
2	Repair	RCB Personnel Air Lock	Fabricated and installed new valve clamps and cap screws	08/28/2008	2-8-040
3	Repair	Piping	Replaced piping because of wall thinning	10/19/2008	2-8-043
1	Replacement	Pump	Replaced RCP cartridge seal housing	10/22/2008	2-8-046
1	Replacement	Pipe Support	Replaced pipe support	10/28/2008	2-8-047
3	Repair	Piping	Replaced piping because of wall thinning	10/20/2008	2-8-048
2	Replacement	Snubber	Replaced snubber	10/18/2008	2-8-051
2	Replacement	Control Valve	Replaced damaged ASME parts (plug)	10/18/2008	2-8-052
2	Repair	Isolation Valve	Drilled/Tapped valve bonnet for seal injection fitting	10/30/2008	2-8-053
2	Repair	Isolation Valve	Seal welded leak-off line plug to valve stuffing box	10/17/2008	2-8-004
1	Replacement	Safety Valve	Replaced Inlet flange studs	10/22/2008	2-8-026
2	Repair	Isolation Valve	Fabricated and installed plugs in furmanite injection ports	11/01/2008	2-8-054
2	Repair	Control Valve	Repaired existing valve per DCP 04-15252-4	10/15/2008	2-8-014
2 & 3	Replacement	Flange Fasteners	Replaced nut and studs from RHR Heat Exchanger	09/17/2008	2-8-002
3	Replacement	Ball Valve	Replaced ball assembly	06/18/2007	2-7-048
3	Replacement	Piping	Replaced piping because of wall thinning	06/18/2007	2-6-007
3	Repair	Water Pump	Repaired diffuser bearing housing	10/25/2008	2-7-057