

PRESERVICE INSPECTION SUMMARY REPORT
OF STEAM GENERATOR TUBING

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

UNIT NO. 2

USNRC DOCKET NO.: 50-499

OPERATING LICENSE NO.: N/A

COMMERCIAL OPERATION DATE: JUNE 1989 (EST)

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8001
1/4



**PRESERVICE INSPECTION SUMMARY REPORT
OF STEAM GENERATOR TUBING**

at the

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

**P.O. Box 308
Bay City, Texas 77414**

Owner: Houston Lighting & Power Company
City Public Service Board
of San Antonio
Central Power and Light Company
City of Austin

Address: P.O. BOX 1700
Houston, Texas 77001

Issue Date: August 1988

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1.0 INTRODUCTION

This document is the Summary Report of the Eddy Current Preservice Inspection (PSI) of the tubing in all four (4) of the steam generators at the South Texas Project Electric Generating Station (STPEGS) - Unit 2. The initial PSI examinations and follow-up examinations (i.e., reexaminations) were performed by Conam Inspection.

1.1 Abbreviations

- 1.1.1 ANII - Authorized Nuclear Inservice Inspector
- 1.1.2 ASME - The American Society of Mechanical Engineers
- 1.1.3 ASTM - American Society for Testing and Materials
- 1.1.4 HL&P - Houston Lighting and Power Company
- 1.1.5 HPIS - Hewlett Packard Interface Buss
- 1.1.6 ID - Inner Diameter
- 1.1.7 MWe - Megawatt Electric
- 1.1.8 OD - Outer Diameter
- 1.1.9 PSI - Preservice Inspection
- 1.1.10 STPEGS - South Texas Project Electric Generating Station

2.0 DESCRIPTION OF THE PLANT

The South Texas Project Electric Generating Station is located near Wadsworth, Texas. The plant Nuclear Regulatory Commission Docket Number is 50-499. The station is a two (2) unit pressurized water reactor plant. Each reactor is a Westinghouse 4-Loop System. The rated output of each unit is 1250 MWe. Unit 2 is scheduled to enter commercial operation in June 1989.

3.0 DESCRIPTION OF THE COMPONENTS EXAMINED

Each of the four (4) steam generators is a Westinghouse Model E2 recirculating design generator, designed and fabricated by Westinghouse Electric Corporation of Tampa, Florida. Each generator contains 4851 tubes. The tubing is ASTM SB-163 inconel material having a nominal outside diameter (OD) of 0.75 inches and a nominal wall thickness of 0.043 inches.

4.0 EXAMINATION SCHEDULES AND PLANS

Conam Inspection performed an eddy current examination of every tube in the scope of the PSI during the months of April and May 1987. Conam

Inspection performed these examinations in accordance with a PSI plan entitled "Eddy Current Preservice Examination Plan" dated April 13, 1987, (HL&P Document No. 300305-00007-B-8N). Based on the results of the PSI examinations, operations were performed in one (1) tube to remove a restriction to passage of the eddy current probe. Additional operations on portions of three (3) other tubes rendered the initial PSI data unacceptable as a baseline for comparison to future data. After corrective operations were performed, a follow-up examination was performed by Conam Inspection in September 1987 on these four (4) tube areas.

5.0 EXAMINATIONS

5.1 Scope of Examinations

The PSI scope identified to be examined by Conam Inspection consisted of all of the tubes in steam generator A, B, C, and D, not previously removed from service.

5.2 Examination Equipment and Procedures

Conam Inspection used the MIZ-18 eddy current examination system manufactured by Zetec, Inc. The MIZ-18 Data Acquisition System consists of a Hewlett Packard 9000 Series computer, a digital tape recorder, and a MIZ-18 remote acquisition unit with HP-IB to MIZ-18 interface. The data was recorded on 600 foot pre-formatted data cartridges (Scotch DC 600HC). The cartridges contain 16 data tracks with each track having 4096 one (1) kilobyte blocks. This permits the recording of 67.1 megabytes of digital data on one cartridge. The MIZ-18 remote acquisition unit provides all primary tester functions, including test frequency generation, coil multiplexing, in-phase and quadrature signal digitization, and data communication with the Hewlett Packard computer.

All tubes were examined with a 0.610 inch diameter, magnetically-saturated, bobbin coil probe. The data was recorded using 400, 200, 100 and 10 KHz frequencies in both the differential and absolute mode.

ASME Boiler and Pressure Vessel Code, Nuclear Components Code Case N-401, "Eddy Current Examination-Section XI, Division 1", was used after the MIZ-18 and the eddy current technique was satisfactorily demonstrated to the Authorized Nuclear Inservice Inspector (ANII).

Procedure No. 42-EC-153 (Rev. 0) entitled, "Multifrequency Eddy Current Procedure, Westinghouse Series E2, Steam Generator Tubing, MIZ-18 Digital Eddy Current System, South Texas Project", and procedure No. 42-DA-011 (Rev. 1) entitled, "Guidelines for Data Analysis of MIZ-18 Data Utilizing DDA-4 Digital Data Analysis System Bobbin Coil Examination South Texas Project" were used to perform the examinations. These procedures are included in the "Eddy Current Preservice Examination Plan" (HL&P Document No. 300305-00007-B-8N). The equipment and techniques used are those expected to be used during subsequent inservice inspections.

Every system calibration and calibration verification has been recorded on a uniquely numbered digital magnetic tape which is stored as a record. The data sheets, which are also stored as records, include the row and column numbers of each tube examined, the associated unique magnetic tape numbers, and the time of the applicable system calibrations and calibration verifications.

5.3 Examination and Analysis Personnel

The Conam Inspection personnel who performed examinations and/or data analysis and their certification levels are listed below. Only Level III or Level IIA personnel were utilized to analyze examination data.

<u>Name</u>	<u>Level</u>
Marlow, R. E.	III
Chambers, D. M.	III
Herrera, G.	IIA
Landis, M.	IIA
Matheson, M.	IIA
Merriman, R.	IIA
Miller, M.	IIA
Mitchell, J. F.	IIA
Nye, L.	IIA
Tobin, J.	IIA
Caperello, M.	III
Douglas, J.	IIB
Dugas, K.	IIB
Ferguson, B.	IIB
Keneipp, M.	IIB
Sordini, J.	IIB

6.0 FLAWS NOTED

6.1 Reductions in Tube Wall Thickness

No flaw was detected with depth equal to or greater than 20 percent of the nominal tube wall thickness.

6.2 Dents and Dings

Lists of all dents and dings detected in each steam generator tube during the PSI examination are included in Appendix A.

6.3 Restrictions

One tube was encountered which was restricted to the degree that the eddy current probe would not pass. The tube restriction was in steam generator C row 40 column 63 between the 7th and 8th support plate locations. This tube was examined from both the hot and cold leg ends using a 0.610 inch diameter probe up to the restriction

from both sides. Additional examinations were made using smaller probes. The smallest probe used was a 0.520 inch diameter bobbin coil probe. This probe would not pass the restriction. A probe head was removed from a probe and the 0.375 inch diameter probe sheath was able to pass the restriction. After the restriction was removed, this tube was reexamined in September, 1987 with a 0.610 inch diameter probe. The 0.610 inch diameter probe passed the area that was previously restricted and no anomalies were noted.

6.4 Tube Expansion Anomalies in the Tubesheet

During the eddy current PSI, many anomalies were noted in or near the hydraulically expanded area of tubes within the tubesheet. These anomalies were characterized and given the following designations:

ETL - Expansion transition located above top of tubesheet
TMR - Top of the expansion below tubesheet secondary face
EXP - Area in expansion greater than normal expansion
SKR - Area in expansion less than normal expansion
NTE - No tube sheet expansion
PTE - Partial tube sheet expansion
BLG - Tube ID greater than nominal

The horizontal component of the 200 KHz absolute data was utilized to determine if these anomalies were present. A tube was considered to have a normal or typical expansion if the 200 KHz absolute signal response of the expansion differed from that of the unexpanded tube at the tubesheet face by approximately 40 volts. Any area in the tubesheet that displayed a response deviation of 20 volts or greater from that of a normal or typical expansion was reported. All tubesheet anomalies are listed in Appendix B.

6.5 Manufacturing Burnish Mark

Manufacturing burnishing marks (MBM) are believed to be the result of final hand polishing or grinding operations on tubing during manufacturing. Polishing or grinding may also cold work the tube causing permeability changes. This type of indication can occur anywhere on the tube. MBM indications typically have a strong absolute coil response with an axial extent on the order of an inch. Differential coil response is usually not pronounced or may not be evidenced at all. Additionally, MBM indications are not consistent in all frequencies. There were 215 burnishing marks noted during the PSI examination.

7.0 CORRECTIVE ACTIONS RECOMMENDED AND TAKEN

All of the tube expansion anomalies recorded were evaluated. It was concluded that additional expansion would be performed on the following tube locations:

<u>Steam Generator</u>	<u>Tube End</u>	<u>Row</u>	<u>Column</u>
B	Cold Leg	19	25
D	Hot Leg	29	13
D	Cold Leg	7	29

The expansions were performed by Westinghouse in September, 1987. The expansion equipment malfunctioned during the reexpansion of steam generator D row 7 column 29 raising a question, at the time, of whether the reexpansion of that tube had been effective. The equipment was returned to Westinghouse for repair. Conam Inspection reexamined these three (3) areas during September, 1987, and detected no recordable indications. The indication in steam generator D row 7 column 29 had been reduced to just below the recording threshold. After the expansion equipment was modified, Westinghouse returned in January, 1988, and applied the expansion process to this tube without any equipment malfunction. Comparison of diatest measurements taken before and after the final expansion effort indicates that the tube profile did not change due to the final expansion effort. Therefore, it was concluded that the eddy current reexamination performed by Conam Inspection in September, 1987, was an acceptable baseline.

In steam generator C, row 40 column 63, a restriction was removed. The tube was subsequently reexamined in September, 1987, in the area formerly restricted. Therefore, there are no limitations to the PSI in the entire length of all tubes not removed from service.

In steam generator C, row 3 column 24 was removed from service by plugging because the tube sheet expansion extended above the tube sheet interface 0.800 inch. The tubes which were removed from service prior to and after the PSI are listed in Appendix C.

8.0 FORM NIS-1

Copies of the completed Form NIS-1, "Owner's Report for Inservice Inspections" for each steam generator are included in Appendix D.

APPENDIX - A

Steam Generator A

Dents and Dings

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: DNT,DNG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:14:59

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	*	CH
39	16		C	F/L	F/L		013	610SM	TSC+ 0.9	20.8		181	DNG	1
31	40		C	F/L	F/L		054	610SM	19C+ 9.2	5.1		179	DNG	1
8	42		C	F/L	F/L		059	610SM	09H+ 41.5	5.8		182	DNG	1
11	88		H	F/L	F/L		044	610SM	09H+ 43.4	9.6		178	DNG	1
34	89		H	F/L	F/L		041	610SM	01H+ 15.5	5.6		180	DNG	1
4	90		H	F/L	F/L		041	610SM	10H+ 9.8	6.8		176	DNG	1
46	95		H	F/L	F/L		027	610SM	21C+ 0.0	7.8		186	DNT	M1

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 7

NO TREND ANALYSIS REQUESTED

APPENDIX - A

Steam Generator B

Dents and Dings

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: DNT,DNG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:24:19

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	VOLTS	CURRENT			CH	
				REQ	TST	REM					MIL	DEG	*		
2	70		H	F/L	F/L		050	610SM	10H+	11.2	12.8		175	DNG	M1
35	73		H	F/L	F/L		053	610SM	09H+	42.9	4.4		182	DNG	1
41	90		H	F/L	F/L		089	610SM	11C+	0.0	7.2		177	DNT	M1
48	90		H	F/L	F/L		067	610SM	TSH+	2.5	5.2		179	DNG	1
6	98		H	F/L	F/L		074	610SM	17C+	30.0	5.5		188	DNG	1
8	115		H	F/L	F/L		086	610SM	TSC+	0.0	43.4		7	DNT	M2

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 6

NO TREND ANALYSIS REQUESTED

APPENDIX - A

Steam Generator C

Dents and Dings

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: DNT,DNG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:54:03

ROW	COL	HEAT#	LEG	FXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	*
30	10		H	F/L	F/L		004	610SM	20C+ 10.9	6.8	180	DNG	1
27	14		H	F/L	F/L		006	610SM	10H+ 0.0	15.2	185	DNT	M2
48	42		H	F/L	F/L		031	610SM	AV4+ 0.0	7.3	178	DNT	M1
11	53		H	F/L	F/L		094	610SM	00H+ 42.7	5.3	11	DNG	1
1	71		C	10H	10H		097	610SM	11C+ 0.0	15.9	3	DNT	M1
31	33		H	F/L	F/L		065	610SM	03H+ 6.3	4.9	186	DNG	1
23	92		H	F/L	F/L		072	610SM	11C+ 0.0	8.6	178	DNT	M1
30	96		H	F/L	F/L		076	610SM	22C+ 12.6	6.2	180	DNG	1
2	107		H	F/L	F/L		085	610SM	04H+ 43.7	6.0	182	DNG	1

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 9

NO TREND ANALYSIS REQUESTED

APPENDIX - A

Steam Generator D

Dents and Dings

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: DNT,DNG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 15:03:39

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION		CURRENT				
				REQ	TST	REM					VOLTS	MIL	DEG	*	CH
12	5		H	F/L	F/L		001	610SM	05H+	3.8	5.6		179	DNG	1
1	6		H	F/L	11C	RIT	005	610SM	10H+	1.2	11.1		185	DNG	1
16	6		H	F/L	F/L		002	610SM	10H+	0.0	20.8		183	DNT	M1
			H	F/L	F/L		002	610SM	10H+	1.8	10.7		184	DNG	1
			H	F/L	F/L		002	610SM	12C+	42.6	5.2		185	DNG	1
26	8		H	F/L	F/L		003	610SM	11C+	0.0	7.4		186	DNT	M1
10	9		H	F/L	F/L		003	610SM	05H+	2.8	5.2		182	DNG	1
			H	F/L	F/L		003	610SM	16C+	3.7	6.3		183	DNG	1
1	10		H	F/L	11C	RIT	005	610SM	10H+	10.6	11.5		185	DNG	1
6	10		H	F/L	F/L		004	610SM	16C+	3.7	8.5		185	DNG	1
23	13		H	F/L	F/L		006	610SM	10H+	0.0	8.1		185	DNT	M1
27	13		H	F/L	F/L		006	610SM	10H+	0.0	6.4		185	DNT	M1
30	15		H	F/L	F/L		007	610SM	10H+	0.0	7.6		185	DNT	M1
9	17		H	F/L	F/L		008	610SM	09H+	32.8	5.7		185	DNG	1
15	19		H	F/L	F/L		009	610SM	11C+	0.0	6.9		186	DNT	M1
13	51		H	F/L	F/L		039	610SM	01H+	19.4	6.6		182	DNG	1
7	52		H	F/L	F/L		039	610SM	08H+	33.4	5.8		185	DNG	1
			H	F/L	F/L		039	610SM	08H+	35.6	5.3		184	DNG	1
38	66		H	F/L	F/L		053	610SM	06H+	3.5	5.6		185	DNG	1
42	66		H	F/L	F/L		053	610SM	05H+	3.7	7.7		183	DNG	1
19	77		H	F/L	F/L		062	610SM	16C+	4.2	5.0		179	DNG	1
16	82		H	F/L	F/L		066	610SM	10H+	4.6	5.5		181	DNG	1
11	101		C	F/L	F/L		092	610SM	09H+	31.9	5.2		174	DNG	1

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 19

NO TREND ANALYSIS REQUESTED

APPENDIX - B

Steam Generator A

Tube Sheet Anomalies

ETL, OXP, SKR, TMR, PTE, NTE & BLG

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: ETL

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:13:22

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: OXP

PAGE: 1 OF 4
DATE: 08/09/88
TIME: 14:15:21

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
1	8		C	F/L	10H	RIT	004	610SM	TEC+	0.9	35.2	345	OXF	4
24	8		C	F/L	F/L		004	610SM	TEC+	1.2	20.1	345	OXF	4
28	8		C	F/L	F/L		004	610SM	TEC+	15.9	20.4	340	OXF	4
19	17		C	F/L	F/L		014	610SM	TEC+	9.7	20.3	186	OXF	4
20	18		C	F/L	F/L		016	610SM	TEC+	11.4	25.2	187	OXF	4
12	22		C	F/L	F/L		025	610SM	TEH+	7.4	30.9	183	OXF	4
26	22		C	F/L	F/L		024	610SM	TEH+	12.8 TO+ 15.2	21.8	0	OXF	4
43	23		C	F/L	F/L		029	610SM	TEH+	4.1	23.8	171	OXF	4
44	23		C	F/L	F/L		029	610SM	TEH+	2.5 TO+ 6.4	27.2	172	OXF	4
13	24		C	F/L	F/L		029	610SM	TEH+	19.3	21.8	171	OXF	4
22	26		C	F/L	F/L		032	610SM	TEC+	9.6	21.2	171	OXF	4
8	27		C	F/L	F/L		032	610SM	TEH+	8.8	22.0	170	OXF	4
9	27		C	F/L	F/L		032	610SM	TEH+	2.1	21.4	170	OXF	4
			C	F/L	F/L		032	610SM	TEC+	8.4	21.3	170	OXF	4
46	27		C	F/L	F/L		033	610SM	TEH+	2.8	21.1	169	OXF	4
10	28		C	F/L	F/L		036	610SM	TEH+	17.0	28.1	171	OXF	4
11	28		C	F/L	F/L		036	610SM	TEH+	3.7	20.4	171	OXF	4
			C	F/L	F/L		036	610SM	TEH+	16.1	28.6	171	OXF	4
12	28		C	F/L	F/L		036	610SM	TEH+	7.7	31.4	170	OXF	4
34	28		C	F/L	F/L		033	610SM	TEC+	6.9	22.2	170	OXF	4
43	29		C	F/L	F/L		038	610SM	TEH+	4.5	44.7	171	OXF	4
44	29		C	F/L	F/L		038	610SM	TEH+	5.8	37.7	174	OXF	4
			C	F/L	F/L		038	610SM	TEH+	5.9	37.9	173	OXF	4
46	29		C	F/L	F/L		038	610SM	TEH+	2.7	21.3	350	OXF	4
9	30		C	F/L	F/L		040	610SM	TEH+	1.5	45.4	192	OXF	4
			C	F/L	F/L		040	610SM	TEH+	16.2	20.7	189	OXF	4
13	30		C	F/L	F/L		040	610SM	TEH+	2.4	28.6	179	OXF	4
			C	F/L	F/L		040	610SM	TEH+	19.3	21.0	180	OXF	4
30	30		C	F/L	F/L		038	610SM	TEH+	21.6	24.0	350	OXF	4
12	31		C	F/L	F/L		040	610SM	TEC+	1.9	23.9	12	OXF	4
29	31		C	F/L	F/L		040	610SM	TEC+	1.8	34.0	9	OXF	4
33	31		C	F/L	F/L		040	610SM	TEH+	1.5	23.9	185	OXF	4
46	31		C	F/L	F/L		042	610SM	TEC+	19.9	20.6	351	OXF	4
29	32		C	F/L	F/L		042	610SM	TEC+	2.3	22.1	171	OXF	4
32	32		C	F/L	F/L		042	610SM	TEC+	1.5	21.0	169	OXF	4
46	33		C	F/L	F/L		046	610SM	TEH+	3.0	26.8	175	OXF	4
44	34		C	F/L	F/L		046	610SM	TEH+	16.8	51.7	177	OXF	4
43	35		C	F/L	F/L		047	610SM	TEH+	0.0 TO+ 5.0	21.2	187	OXF	4
46	35		C	F/L	F/L		047	610SM	TEH+	0.0 TO+ 4.9	31.6	190	OXF	4
9	36		C	F/L	F/L		049	610SM	TEH+	1.1	37.8	175	OXF	4
47	39		C	F/L	F/L		054	610SM	TEH+	2.7	27.3	192	OXF	4
41	40		C	F/L	F/L		054	610SM	TEH+	12.4	21.9	13	OXF	4
46	41		C	F/L	F/L		057	610SM	TEH+	3.1	54.6	177	OXF	4
36	51		C	F/L	F/L		074	610SM	TEH+	1.5	32.0	176	OXF	4
32	54		C	F/L	F/L		081	610SM	TEC+	4.1 TO+ 7.4	20.0	180	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: OXP

PAGE: 2 OF 4
DATE: 08/09/88
TIME: 14:15:21

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	°
33	54		C	F/L	F/L		081	610SM	TEC+ 3.7 TO+ 7.1	22.6	180	OXF	4
16	68		H	F/L	F/L		082	610SM	TEH+ 22.2	22.0	183	OXF	4
19	69		H	F/L	F/L		082	610SM	TEH+ 22.0	29.2	185	OXF	4
24	69		H	F/L	F/L		082	610SM	TEH+ 21.9	24.1	183	OXF	4
27	69		H	F/L	F/L		082	610SM	TEH+ 22.4	20.8	182	OXF	4
29	69		H	F/L	F/L		082	610SM	TEH+ 22.0	21.6	182	OXF	4
41	70		H	F/L	F/L		080	610SM	TEH+ 18.1	20.3	3	OXF	4
43	70		H	F/L	F/L		080	610SM	TEH+ 0.0 TO+ 2.1	22.1	6	OXF	4
22	75		H	F/L	F/L		068	610SM	TEH+ 4.3	23.8	4	OXF	4
22	81		H	F/L	F/L		058	610SM	TEH+ 5.1	33.8	6	OXF	4
41	83		H	F/L	F/L		055	610SM	TEH+ 19.9	31.0	358	OXF	4
45	83		H	F/L	F/L		052	610SM	TEH+ 17.7 TO+ 21.2	28.9	6	OXF	4
46	83		H	F/L	F/L		052	610SM	TEH+ 18.7 TO+ 21.1	27.6	0	OXF	4
45	89		H	F/L	F/L		041	610SM	TEH+ 0.0 TO+ 21.1	59.7	356	OXF	4
27	90		H	F/L	F/L		039	610SM	TEC+ 14.3	20.3	8	OXF	4
28	90		H	F/L	F/L		039	610SM	TEH+ 15.5	22.8	9	OXF	4
29	90		H	F/L	F/L		039	610SM	TEH+ 20.1	22.8	11	OXF	4
31	90		H	F/L	F/L		039	610SM	TEH+ 3.0	22.6	5	OXF	4
			H	F/L	F/L		039	610SM	TEH+ 16.9	22.9	189	OXF	4
32	90		H	F/L	F/L		039	610SM	TEH+ 3.2	32.2	187	OXF	4
43	90		H	F/L	F/L		039	610SM	TEH+ 2.9	32.4	5	OXF	4
44	90		H	F/L	F/L		039	610SM	TEC+ 5.4	23.8	11	OXF	4
27	91		H	F/L	F/L		037	610SM	TEH+ 4.0	26.2	5	OXF	4
31	91		H	F/L	F/L		037	610SM	TEC+ 6.1	20.2	9	OXF	4
14	94		H	F/L	F/L		027	610SM	TEH+ 3.3	26.6	10	OXF	4
21	95		H	F/L	F/L		030	610SM	TEH+ 11.0	20.7	3	OXF	4
39	95		H	F/L	F/L		027	610SM	TEH+ 14.4	21.3	183	OXF	4
45	95		H	F/L	F/L		027	610SM	TEH+ 19.3	24.2	353	OXF	4
46	95		H	F/L	F/L		027	610SM	TEH+ 6.8	22.8	7	OXF	4
18	97		H	F/L	F/L		028	610SM	TEH+ 6.4	27.0	2	OXF	4
21	97		H	F/L	F/L		028	610SM	TEC+ 17.4	23.6	185	OXF	4
16	98		H	F/L	F/L		026	610SM	TEH+ 1.9	20.6	185	OXF	4
18	98		H	F/L	F/L		026	610SM	TEH+ 15.0	20.5	0	OXF	4
19	98		H	F/L	F/L		026	610SM	TEH+ 11.5	25.2	14	OXF	4
20	98		H	F/L	F/L		026	610SM	TEH+ 2.9	22.9	199	OXF	4
25	98		H	F/L	F/L		026	610SM	TEC+ 12.8	20.6	0	OXF	4
26	98		H	F/L	F/L		026	610SM	TEC+ 11.9	21.3	9	OXF	4
35	98		H	F/L	F/L		026	610SM	TEH+ 6.4	20.5	14	OXF	4
20	99		H	F/L	F/L		023	610SM	TEH+ 2.2	23.2	325	OXF	4
24	99		H	F/L	F/L		023	610SM	TEH+ 1.9	26.0	149	OXF	4
25	99		H	F/L	F/L		023	610SM	TEH+ 4.3	21.7	329	OXF	4
			H	F/L	F/L		023	610SM	TEH+ 17.1	20.7	151	OXF	4
28	99		H	F/L	F/L		023	610SM	TEH+ 3.0	21.1	145	OXF	4
33	99		H	F/L	F/L		023	610SM	TEC+ 20.1	20.2	355	OXF	4
3	100		H	F/L	F/L		022	610SM	TEH+ 11.9	22.6	7	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: OXP

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DATE: 08/09/88
TIME: 14:15:21

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
35	100		H	F/L	F/L		022	610SM	TEC+ 18.8	44.4		7	OXF	4
20	101		H	F/L	F/L		020	610SM	TEH+ 17.2	20.8		191	OXF	4
30	101		H	F/L	F/L		020	610SM	TEH+ 6.5	46.7		193	OXF	4
39	101		H	F/L	F/L		022	610SM	TEH+ 19.4	20.4		184	OXF	4
1	102		H	F/L	F/L	RIT	020	610SM	TEH+ 15.2	28.3		11	OXF	4
3	102		H	F/L	F/L		020	610SM	TEH+ 15.3	23.3		190	OXF	4
			H	F/L	F/L		020	610SM	TEH+ 20.5	21.8		11	OXF	4
12	102		H	F/L	F/L		020	610SM	TEH+ 3.4	23.5		183	OXF	4
23	102		H	F/L	F/L		020	610SM	TEC+ 12.7	23.1		12	OXF	4
28	102		H	F/L	F/L		018	610SM	TEH+ 7.2	21.1		8	OXF	4
32	102		H	F/L	F/L		018	610SM	TEH+ 5.0	20.8		11	OXF	4
35	102		H	F/L	F/L		018	610SM	TEH+ 6.2	36.0		7	OXF	4
30	103		H	F/L	F/L		018	610SM	TEH+ 4.3	21.3		190	OXF	4
34	103		H	F/L	F/L		018	610SM	TEH+ 4.8	20.2		189	OXF	4
20	104		H	F/L	F/L		017	610SM	TEH+ 7.8	22.2		11	OXF	4
23	104		H	F/L	F/L		017	610SM	TEH+ 3.4	25.8		188	OXF	4
24	104		H	F/L	F/L		017	610SM	TEH+ 1.9	26.4		190	OXF	4
37	105		H	F/L	F/L		017	610SM	TEC+ 19.7	20.4		191	OXF	4
12	106		H	F/L	F/L		015	610SM	TEC+ 2.0	21.2		9	OXF	4
18	106		H	F/L	F/L		012	610SM	TEH+ 8.6	23.8		183	OXF	4
32	106		H	F/L	F/L		012	610SM	TEC+ 6.2	26.1		183	OXF	4
2	107		H	F/L	F/L		012	610SM	TEH+ 7.7	32.4		2	OXF	4
			H	F/L	F/L		012	610SM	TEH+ 16.0	23.7		183	OXF	4
3	107		H	F/L	F/L		012	610SM	TEH+ 7.0	23.9		186	OXF	4
8	107		H	F/L	F/L		012	610SM	TEH+ 3.2	22.0		3	OXF	4
23	107		H	F/L	F/L		012	610SM	TEH+ 2.2	25.4		183	OXF	4
26	107		H	F/L	F/L		012	610SM	TEH+ 3.9	40.0		7	OXF	4
27	107		H	F/L	F/L		012	610SM	TEH+ 9.0	25.7		185	OXF	4
4	108		H	F/L	F/L		012	610SM	TEC+ 8.0	30.0		5	OXF	4
3	109		H	F/L	F/L		010	610SM	TEH+ 3.1	21.5		192	OXF	4
6	109		H	F/L	F/L		010	610SM	TEH+ 6.1	29.5		15	OXF	4
21	109		H	F/L	F/L		010	610SM	TEH+ 3.2	28.8		193	OXF	4
22	109		H	F/L	F/L		010	610SM	TEH+ 5.9	31.3		196	OXF	4
23	109		H	F/L	F/L		010	610SM	TEC+ 20.0	20.6		190	OXF	4
2	111		H	F/L	F/L		009	610SM	TEH+ 12.6	26.5		164	OXF	4
3	111		H	F/L	F/L		009	610SM	TEH+ 10.0	29.4		185	OXF	4
11	111		H	F/L	F/L		009	610SM	TEH+ 3.9	22.4		186	OXF	4
14	111		H	F/L	F/L		009	610SM	TEH+ 8.2	24.5		7	OXF	4
1	112		H	F/L	F/L	RIT	007	610SM	TEH+ 6.5	35.2		163	OXF	4
7	112		H	F/L	F/L		007	610SM	TEH+ 1.8	28.2		158	OXF	4
			H	F/L	F/L		007	610SM	TEH+ 4.7	24.2		162	OXF	4
11	112		H	F/L	F/L		007	610SM	TEH+ 14.8	23.3		161	OXF	4
8	113		H	F/L	F/L		007	610SM	TEH+ 14.6	26.1		345	OXF	4
10	113		H	F/L	F/L		007	610SM	TEH+ 12.7	22.3		168	OXF	4
10	114		H	F/L	F/L		005	610SM	TEH+ 2.9 TO+ 9.3	27.8		341	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: OXP

PAGE: 4 OF 4
DATE: 08/09/88
TIME: 14:15:21

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
11	114		H	F/L	F/L		005	610SM	TEH+ 3.2 TO+ 17.2	54.5		344	OXF	4
14	114		H	F/L	F/L		005	610SM	TEH+ 2.6 TO+ 14.6	35.6		337	OXF	4
15	114		H	F/L	F/L		005	610SM	TEH+ 13.8 TO+ 18.9	20.5		339	OXF	4
18	114		H	F/L	F/L		005	610SM	TEH+ 4.6 TO+ 19.2	48.4		336	OXF	4
19	114		H	F/L	F/L		005	610SM	TEH+ 13.7 TO+ 20.6	32.9		153	OXF	4
19	115		H	F/L	F/L		005	610SM	TEH+ 9.1 TO+ 13.8	23.6		162	OXF	4
9	116		H	F/L	F/L		005	610SM	TEC+ 20.1	30.1		155	OXF	4
4	119		H	F/L	F/L		002	610SM	TEH+ 16.7	40.7		171	OXF	4
10	119		H	F/L	F/L		002	610SM	TEH+ 14.0	21.5		171	OXF	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 134

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
 LOCATION: ALL
 CRITERIA: SKR

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ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM					VOLTS	MIL	DEG	%	CH
26	26		C	F/L	F/L			032	610SM	TEC+ 0.0 TO+ 5.6	20.9		166	SKR	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: TMR

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:17:21

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
7	9		C	F/L	F/L		004	610SM	TSH- 0.3	12.5		187	TMR	M2
12	9		C	F/L	F/L		004	610SM	TSH- 0.3	20.9		9	TMR	M2
13	9		C	F/L	F/L		004	610SM	TSH- 0.3	26.0		9	TMR	M2
12	10		C	F/L	F/L		006	610SM	TSH- 0.3	22.2		6	TMR	M2
13	10		C	F/L	F/L		006	610SM	TSH- 0.3	22.9		2	TMR	M2
12	11		C	F/L	F/L		006	610SM	TSH- 0.3	25.6		5	TMR	M2
13	15		C	F/L	F/L		013	610SM	TSH- 0.4	23.8		6	TMR	M2
8	34		C	F/L	F/L		046	610SM	TSH- 0.4	23.7		0	TMR	M2
15	37		C	F/L	F/L		049	610SM	TSH- 0.4	25.1		358	TMR	M2
26	53		C	F/L	F/L		075	610SM	TSH- 0.3	8.5		16	TMR	M2
2	59		H	F/L	F/L		094	610SM	TSH- 0.3	20.3		12	TMR	M2
20	68		H	F/L	F/L		095	610SM	TSH- 0.3	26.1		185	TMR	M2
6	69		H	F/L	F/L		082	610SM	TSC- 0.3	22.8		16	TMR	M2
18	74		H	F/L	F/L		070	610SM	TSH- 0.3	21.2		186	TMR	M2
44	84		H	F/L	F/L		052	610SM	TSC- 0.3	23.4		7	TMR	M2
10	98		H	F/L	F/L		026	610SM	TSH- 0.4	20.0		6	TMR	M2
10	99		H	F/L	F/L		023	610SM	TSC- 0.3	16.3		6	TMR	M2

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 17

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: PTE

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DATE: 08/09/88
TIME: 14:17:50

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	*
35	21		C	F/L	F/L		024	610SM	TEH+ 16.6 TO+ 22.5	18.8		346	PTE	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: NTE

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DATE: 08/08/88
TIME: 11:11:49

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
LOCATION: ALL
CRITERIA: BLG

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DATE: 08/09/88
TIME: 14:18:09

*** NO CALLS IN THIS RANGE ***

APPENDIX - B

Steam Generator B

Tube Sheet Anomalies

ETL, OXP, SKR, TMR, PTE, NTE & BLG

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
 LOCATION: ALL
 CRITERIA: ETL

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 TIME: 14:22:39

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	*
38	54		H	F/L	F/L		038	610SM	TSH+ 0.3	24.7		4	ETL	M2

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: OXP

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DATE: 08/09/88
TIME: 14:24:44

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	CH
5	3		H	F/L	F/L		001	610SM	TEH+ 17.1	27.4	177	EXP	4
6	3		H	F/L	F/L		037	610SM	TEH+ 16.3	26.7	175	EXP	4
			H	F/L	F/L		037	610SM	TEH+ 17.4 TO+ 19.4	21.8	175	EXP	4
7	3		H	F/L	F/L		001	610SM	TEH+ 21.0	25.7	156	EXP	4
14	3		H	F/L	F/L		001	610SM	TEH+ 20.2	23.9	2	EXP	4
16	4		H	F/L	F/L		001	610SM	TEH+ 9.4	22.4	2	EXP	4
			H	F/L	F/L		001	610SM	TEH+ 16.2	20.9	359	EXP	4
14	5		H	F/L	F/L		001	610SM	TEH+ 19.6	22.4	3	EXP	4
5	6		H	F/L	F/L		002	610SM	TEC+ 9.7 TO+ 4.5	25.5	183	EXP	4
7	6		H	F/L	F/L		002	610SM	TEC+ 8.0	20.8	3	EXP	4
16	6		H	F/L	F/L		002	610SM	TEH+ 8.4	21.5	185	EXP	4
22	6		H	F/L	F/L		002	610SM	TEH+ 21.6	22.9	3	EXP	4
24	6		H	F/L	F/L		002	610SM	TEH+ 16.6 TO+ 21.7	20.2	184	EXP	4
7	7		H	F/L	F/L		002	610SM	TEC+ 7.1	23.5	2	EXP	4
15	7		H	F/L	F/L		002	610SM	TEH+ 20.4	20.3	182	EXP	4
19	8		H	F/L	F/L		003	610SM	TEH+ 14.7	20.4	175	EXP	4
25	8		H	F/L	F/L		002	610SM	TEH+ 21.3	23.9	5	EXP	4
15	9		H	F/L	F/L		003	610SM	TEC+ 6.5	27.2	185	EXP	4
19	9		H	F/L	F/L		003	610SM	TEH+ 15.6	20.7	177	EXP	4
			H	F/L	F/L		003	610SM	TEC+ 6.3	24.2	180	EXP	4
26	9		H	F/L	F/L		003	610SM	TEH+ 17.6	24.6	181	EXP	4
19	11		H	F/L	F/L		004	610SM	TEH+ 6.6	34.3	5	EXP	4
23	11		H	F/L	F/L		004	610SM	TEH+ 7.0	48.4	5	EXP	4
27	11		H	F/L	F/L		004	610SM	TEH+ 6.7	43.2	5	EXP	4
28	11		H	F/L	F/L		004	610SM	TEH+ 3.0	21.4	182	EXP	4
9	12		H	F/L	F/L		005	610SM	TEC+ 16.3	23.2	180	EXP	4
13	12		H	F/L	F/L		005	610SM	TEC+ 16.3	27.9	183	EXP	4
27	12		H	F/L	F/L		004	610SM	TEH+ 3.9 TO+ 7.4	21.9	183	EXP	4
12	13		H	F/L	F/L		005	610SM	TEH+ 5.4 TO+ 7.5	20.6	183	EXP	4
14	13		H	F/L	F/L		005	610SM	TEH+ 4.7 TO+ 9.0	20.7	184	EXP	4
30	13		H	F/L	F/L		005	610SM	TEH+ 5.1 TO+ 9.4	22.2	183	EXP	4
35	14		H	F/L	F/L		005	610SM	TEH+ 0.5	22.9	0	EXP	4
3	15		H	F/L	F/L		006	610SM	TEC+ 4.6	20.7	3	EXP	4
19	15		H	F/L	F/L		006	610SM	TEH+ 16.9 TO+ 20.0	24.3	184	EXP	4
17	16		H	F/L	F/L		007	610SM	TEC+ 10.0	22.1	183	EXP	4
21	16		H	F/L	F/L		007	610SM	TEC+ 9.5	23.0	175	EXP	4
34	16		H	F/L	F/L		007	610SM	TEH+ 21.3	24.7	3	EXP	4
7	19		H	F/L	F/L		009	610SM	TEC+ 5.7	25.2	8	EXP	4
8	20		H	F/L	F/L		010	610SM	TEC+ 11.5	20.5	186	EXP	4
			H	F/L	F/L		010	610SM	TEC+ 8.7	28.0	7	EXP	4
14	20		H	F/L	F/L		010	610SM	TEH+ 15.7	31.6	0	EXP	2
29	20		H	F/L	F/L		010	610SM	TEC+ 11.7	31.3	189	EXP	4
36	20		H	F/L	F/L		010	610SM	TEC+ 15.5	20.1	6	EXP	4
37	20		H	F/L	F/L		010	610SM	TEC+ 12.4	20.1	189	EXP	4
41	20		H	F/L	F/L		010	610SM	TEH+ 11.6	22.7	188	EXP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: OXP

PAGE: 2 OF 4
DATE: 08/09/88
TIME: 14:24:44

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	+
8	21		H	F/L	F/L		010	610SM	TEC+ 9.2	21.7	189	OXF	4
			H	F/L	F/L		010	610SM	TEC+ 3.6	25.2	10	OXF	4
17	21		H	F/L	F/L		010	610SM	TEH+ 6.3	22.8	10	OXF	4
25	21		H	F/L	F/L		010	610SM	TEH+ 14.3	25.1	9	OXF	4
13	22		H	F/L	F/L		011	610SM	TEH+ 10.6	22.7	0	OXF	4
17	22		H	F/L	F/L		011	610SM	TEH+ 11.5	29.5	360	OXF	4
21	22		H	F/L	F/L		011	610SM	TEH+ 11.0	29.5	359	OXF	4
25	22		H	F/L	F/L		011	610SM	TEH+ 11.7	26.5	358	OXF	4
27	22		H	F/L	F/L		011	610SM	TEH+ 16.3	22.9	179	OXF	4
20	23		H	F/L	F/L		012	610SM	TEC+ 17.6	26.6	180	OXF	4
24	23		H	F/L	F/L		012	610SM	TEH+ 7.1	43.5	359	OXF	4
			H	F/L	F/L		012	610SM	TEH+ 9.0	20.5	0	OXF	4
41	24		H	F/L	F/L		012	610SM	TEC+ 10.4	17.2	178	OXF	4
15	26		H	F/L	F/L		014	610SM	TEH+ 7.7	20.2	3	OXF	4
29	26		H	F/L	F/L		014	610SM	TEH+ 6.8	28.0	183	OXF	4
31	26		H	F/L	F/L		014	610SM	TEH+ 10.9 TO+ 13.9	25.5	184	OXF	4
9	28		H	F/L	F/L		016	610SM	TEH+ 19.6	39.9	348	OXF	4
18	28		H	F/L	F/L		016	610SM	TEH+ 3.3	21.0	167	OXF	4
26	33		H	F/L	F/L		020	610SM	TEC+ 7.5	22.2	347	OXF	4
45	33		H	F/L	F/L		020	610SM	TEH+ 9.4	22.4	351	OXF	4
47	33		H	F/L	F/L		021	610SM	TEC+ 17.2	23.5	349	OXF	4
21	37		H	F/L	F/L		023	610SM	TEC+ 5.6	22.7	349	OXF	4
31	38		H	F/L	F/L		024	610SM	TEC+ 9.9	21.0	350	OXF	4
24	41		H	F/L	F/L		027	610SM	TEH+ 11.4	27.6	349	OXF	4
18	42		H	F/L	F/L		027	610SM	TEC+ 8.1	20.6	347	OXF	4
20	42		H	F/L	F/L		027	610SM	TEC+ 8.4	31.9	351	OXF	4
48	45		H	F/L	F/L		J29	610SM	TEH+ 16.1	21.8	169	OXF	4
35	54		H	F/L	F/L		038	610SM	TEC+ 2.3	22.3	175	OXF	4
39	54		H	F/L	F/L		038	610SM	TEC+ 2.6	42.7	175	OXF	4
40	54		H	F/L	F/L		038	610SM	TEC+ 2.0	20.8	174	OXF	4
47	54		H	F/L	F/L		038	610SM	TEC+ 2.5	29.3	175	OXF	4
9	55		H	F/L	F/L		039	610SM	TEH+ 11.0	23.7	173	OXF	4
13	55		H	F/L	F/L		039	610SM	TEH+ 10.3	20.0	173	OXF	4
17	55		H	F/L	F/L		039	610SM	TEH+ 3.3 TO+ 13.3	22.6	174	OXF	4
1	57		C	11C	11C		093	610SM	TEC+ 13.8	23.6	183	OXF	4
26	57		H	F/L	F/L		040	610SM	TEH+ 1.6	20.5	178	OXF	4
20	58		H	F/L	F/L		041	610SM	TEH+ 19.0	20.2	353	OXF	4
4	59		H	F/L	F/L		042	610SM	TEC+ 19.8	21.7	0	OXF	4
27	63		H	F/L	F/L		044	610SM	TEH+ 18.7	21.4	173	OXF	4
37	67		H	F/L	F/L		048	610SM	TEC+ 9.3	22.1	174	OXF	4
33	69		H	F/L	F/L		049	610SM	TEH+ 16.8	20.1	2	OXF	4
45	69		H	F/L	F/L		049	610SM	TEH+ 16.3	25.2	0	OXF	4
			H	F/L	F/L		049	610SM	TEH+ 17.5	20.3	2	OXF	4
2	72		H	F/L	F/L		052	610SM	TEH+ 1.9	20.7	3	OXF	4
35	72		H	F/L	F/L		051	610SM	TEC+ 3.6	24.0	359	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: OXP

PAGE: 3 OF 4
DATE: 08/09/88
TIME: 14:24:44

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
20	73		H	F/L	F/L		052	610SM	TEH+ 1.4	20.3		357	OXF	4
34	74		H	F/L	F/L		053	610SM	TEH+ 3.9	20.7		179	OXF	4
2	78		H	F/L	F/L		057	610SM	TEH+ 1.9	33.3		359	OXF	4
6	78		H	F/L	F/L		057	610SM	TEH+ 2.6	38.1		358	OXF	4
10	78		H	F/L	F/L		056	610SM	TEH+ 2.4	32.5		11	OXF	4
40	78		H	F/L	F/L		056	610SM	TEC+ 9.6	25.4		191	OXF	4
44	78		H	F/L	F/L		056	610SM	TEC+ 8.6	41.1		192	OXF	4
48	78		H	F/L	F/L		056	610SM	TEC+ 9.0	35.4		191	OXF	4
26	79		H	F/L	F/L		057	610SM	TEH+ 2.1	20.6		356	OXF	4
42	79		H	F/L	F/L		057	610SM	TEH+ 2.0	27.0		1	OXF	4
43	79		H	F/L	F/L		057	610SM	TEH+ 4.5	23.0		359	OXF	4
41	82		H	F/L	F/L		059	610SM	TEC+ 18.2	25.3		357	OXF	4
39	88		H	F/L	F/L		089	610SM	TEH+ 4.3	20.1		0	OXF	4
4	90		H	F/L	F/L		066	610SM	TEH+ 2.4	37.6		1	OXF	4
16	90		H	F/L	F/L		066	610SM	TEH+ 2.4	38.6		359	OXF	4
9	95		H	F/L	F/L		071	610SM	TEC+ 8.6	21.3		3	OXF	4
25	95		H	F/L	F/L		071	610SM	TEC+ 7.3	23.3		7	OXF	4
39	96		H	F/L	F/L		073	610SM	TEC+ 14.6	20.7		14	OXF	4
2	103		H	F/L	F/L		079	610SM	TEH+ 8.3	21.1		189	OXF	4
24	105		H	F/L	F/L		080	610SM	TEH+ 5.1 TO+ 7.1	20.6		190	OXF	4
1	107		H	F/L	11C	RIT	082	610SM	TEH+ 1.7 TO+ 10.5	47.7		16	OXF	4
6	107		H	F/L	F/L		082	610SM	TEH+ 8.3	21.6		13	OXF	4
			H	F/L	F/L		082	610SM	TEH+ 11.5	19.0		195	OXF	4
16	107		H	F/L	F/L		082	610SM	TEH+ 5.4	56.6		17	OXF	4
22	108		H	F/L	F/L		083	610SM	TEC+ 14.1	22.0		185	OXF	4
10	112		H	F/L	F/L		085	610SM	TEC+ 18.3	22.7		193	OXF	4
			H	F/L	F/L		085	610SM	TEC+ 12.6	22.5		12	OXF	4
19	112		H	F/L	F/L		085	610SM	TEH+ 2.1	31.7		13	OXF	4
			H	F/L	F/L		085	610SM	TEH+ 16.2	22.5		16	OXF	4
20	112		H	F/L	F/L		085	610SM	TEH+ 2.2	22.8		13	OXF	4
1	113		H	F/L	11C	RIT	085	610SM	TEH+ 5.4	23.6		13	OXF	4
11	113		H	F/L	F/L		085	610SM	TEC+ 10.3	23.1		14	OXF	4
13	113		H	F/L	F/L		085	610SM	TEH+ 15.4	20.6		12	OXF	4
1	114		H	F/L	11C	RIT	085	610SM	TEH+ 5.6	23.8		190	OXF	4
9	114		H	F/L	F/L		086	610SM	TEC+ 16.0	23.1		9	OXF	4
7	115		H	F/L	F/L		086	610SM	TEC+ 5.8	20.4		9	OXF	4
1	117		H	F/L	11C	RIT	088	610SM	TEH+ 21.1	20.3		8	OXF	4
3	117		H	F/L	F/L		088	610SM	TEH+ 0.4	20.8		8	OXF	4
9	117		H	F/L	F/L		088	610SM	TEH+ 1.3	23.4		9	OXF	4
			H	F/L	F/L		088	610SM	TEH+ 3.0	20.4		183	OXF	4
11	117		H	F/L	F/L		088	610SM	TEH+ 1.2	21.6		186	OXF	4
14	117		H	F/L	F/L		088	610SM	TEC+ 1.1	26.0		10	OXF	4
1	118		H	F/L	11C	RIT	088	610SM	TEH+ 2.3	21.6		182	OXF	4
5	118		H	F/L	F/L		088	610SM	TEH+ 2.8	27.8		13	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: OXP

PAGE: 4 OF 4
DATE: 08/09/88
TIME: 14:24:44

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 123

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
 LOCATION: ALL
 CRITERIA: SKR

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 14:26:17

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	SKR	CH
16	34		H	F/L	F/L		021	610SM	TEH+ 3.0	25.4		347	SKR	6
45	42		H	F/L	F/L		028	610SM	TEC+ 6.2	27.4		349	SKR	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 2

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: TMR

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:26:36

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	*
5	14		H	F/L	F/L		006	610SM	TSC- 0.3	3.5		14	TMR	5

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: PTE

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:26:58

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
 LOCATION: ALL
 CRITERIA: NTE

PAGE: 1 OF 1
 DATE: 08/08/88
 TIME: 11:14:07

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
19	25		H	F/L	F/L		013	610SM	TSC+ 0.0	3.1		353	NTE	I

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: . 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: BLG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:27:19

*** NO CALLS IN THIS RANGE ***

CCNAM

APPENDIX - B

Steam Generator C

Tube Sheet Anomalies

ETL, OXP, SKR, TMR, PTE, NTE & BLG

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
 LOCATION: ALL
 CRITERIA: ETL

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 14:52.46

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	* CH
3	24		H	F/L	F/L		014	610SM	TSH+ 0.8	39.1		0	ETL	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: OXP

PAGE: 1 OF 5
DATE: 08/09/88
TIME: 14:54:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	CH
1	14		C	11C	11C		097	610SM	TEC+ 10.0	22.0	173	0XP	4
13	14		H	F/L	F/L		007	610SM	TEH+ 10.2	20.0	358	0XP	4
13	19		H	F/L	F/L		010	610SM	TEH+ 11.7	25.0	353	0XP	4
21	19		H	F/L	F/L		010	610SM	TEH+ 17.1	23.7	0	0XP	4
36	19		H	F/L	F/L		010	610SM	TEH+ 8.7	20.5	357	0XP	4
16	20		H	F/L	F/L		011	610SM	TEH+ 1.3	25.3	359	0XP	4
10	21		H	F/L	F/L		011	610SM	TEC+ 8.6	19.4	358	0XP	4
6	23		H	F/L	F/L		013	610SM	TEH+ 4.8	20.4	354	0XP	4
22	24		H	F/L	F/L		014	610SM	TEH+ 1.7	43.8	178	0XP	4
			H	F/L	F/L		014	610SM	TEH+ 11.8	29.9	353	0XP	4
23	24		H	F/L	F/L		014	610SM	TEH+ 19.0	20.2	180	0XP	4
14	31		H	F/L	F/L		021	610SM	TEH+ 3.2	28.7	7	0XP	4
37	32		H	F/L	F/L		021	610SM	TEC+ 8.4	24.5	187	0XP	4
40	32		H	F/L	F/L		021	610SM	TEC+ 8.0	28.9	187	0XP	4
48	32		H	F/L	F/L		021	610SM	TEH+ 13.6	20.2	7	0XP	4
14	37		H	F/L	F/L		026	610SM	TEH+ 1.0	20.5	188	0XP	4
18	37		H	F/L	F/L		026	610SM	TEC+ 4.5 TO+ 11.5	22.9	7	0XP	4
20	37		H	F/L	F/L		026	610SM	TEC+ 12.9 TO+ 19.3	20.9	5	0XP	4
43	37		H	F/L	F/L		026	610SM	TEH+ 1.9	37.7	9	0XP	4
2	38		H	F/L	F/L		026	610SM	TEC+ 2.7 TO+ 6.6	27.5	6	0XP	4
22	38		H	F/L	F/L		027	610SM	TEC+ 10.6	20.1	176	0XP	4
34	38		H	F/L	F/L		027	610SM	TEC+ 11.9	27.9	6	0XP	4
41	38		H	F/L	F/L		027	610SM	TEC+ 5.6	20.3	7	0XP	4
29	39		H	F/L	F/L		028	610SM	TEH+ 6.2 TO+ 0.0	48.1	7	0XP	4
28	41		H	F/L	F/L		029	610SM	TEC+ 3.5	32.1	183	0XP	4
34	42		H	F/L	F/L		030	610SM	TEH+ 2.5	26.1	11	0XP	4
12	46		H	F/L	F/L		03	610SM	TEH+ 1.7	41.7	7	0XP	4
25	48		H	F/L	F/L		042	610SM	TEC+ 6.9	25.6	353	0XP	4
30	48		H	F/L	F/L		042	610SM	TEC+ 6.4	20.7	347	0XP	4
34	48		H	F/L	F/L		042	610SM	TEC+ 8.1 TO+ 11.2	22.6	351	0XP	4
37	48		H	F/L	F/L		042	610SM	TEC+ 4.3	20.4	164	0XP	4
41	48		H	F/L	F/L		042	610SM	TEC+ 6.6	24.0	346	0XP	4
44	48		H	F/L	F/L		042	610SM	TEC+ 7.2 TO+ 9.4	23.9	355	0XP	4
45	48		H	F/L	F/L		036	610SM	TEC+ 19.4	19.7	185	0XP	4
			H	F/L	F/L		036	610SM	TEC+ 9.4	23.9	186	0XP	4
46	48		H	F/L	F/L		036	610SM	TEC+ 19.3 TO+ 15.9	21.5	185	0XP	4
			H	F/L	F/L		036	610SM	TEC+ 9.4 TO+ 5.6	20.9	185	0XP	4
47	48		H	F/L	F/L		036	610SM	TEC+ 14.9 TO+ 17.5	23.4	0	0XP	4
16	49		H	F/L	F/L		036	610SM	TEC+ 15.2 TO+ 19.2	20.4	5	0XP	4
34	49		H	F/L	F/L		036	610SM	TEC+ 5.5 TO+ 14.0	20.2	7	0XP	4
45	51		H	F/L	F/L		037	610SM	TEH+ 20.2	22.8	5	0XP	4
12	52		H	F/L	F/L		038	610SM	TEH+ 0.7	33.2	6	0XP	4
13	56		H	F/L	F/L		044	610SM	TEH+ 2.2	28.2	171	0XP	4
35	56		H	F/L	F/L		044	610SM	TEC+ 3.5	26.5	350	0XP	4
6	57		H	F/L	F/L		044	610SM	TEH+ 19.9	22.7	353	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: OXP

PAGE: 2 OF 5
DATE: 08/09/88
TIME: 14:54:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	%
26	58		H	F/L	F/L		044	610SM	TEC+ 5.3	27.1	350	0XP	4
43	62		H	F/L	F/L		048	610SM	TEC+ 8.0	38.0	179	0XP	4
45	62		H	F/L	F/L		048	610SM	TEC+ 5.6 TO+ 9.4	22.0	2	0XP	4
19	63		H	F/L	F/L		048	610SM	TEH+ 2.6	25.1	182	0XP	4
38	63		H	F/L	F/L		049	610SM	TEH+ 17.0	27.8	358	0XP	4
41	63		H	F/L	F/L		049	610SM	TEC+ 5.4	32.3	0	0XP	4
42	63		H	F/L	F/L		049	610SM	TEC+ 5.6	36.3	180	0XP	4
43	63		H	F/L	F/L		049	610SM	TEC+ 9.5	20.8	176	0XP	4
12	64		H	F/L	F/L		049	610SM	TEC+ 7.7 TO+ 10.9	24.6	0	0XP	4
43	64		H	F/L	F/L		049	610SM	TEC+ 8.7	46.1	181	0XP	4
37	65		H	F/L	F/L		050	610SM	TEC+ 11.5	25.0	6	0XP	4
40	65		H	F/L	F/L		050	610SM	TEC+ 3.5 TO+ 7.8	22.9	2	0XP	4
41	65		H	F/L	F/L		050	610SM	TEC+ 8.2 TO+ 16.9	25.0	0	0XP	4
23	66		H	F/L	F/L		051	610SM	TEC+ 2.2	35.3	180	0XP	4
36	66		H	F/L	F/L		050	610SM	TEC+ 7.9	38.9	3	0XP	4
37	66		H	F/L	F/L		050	610SM	TEC+ 7.4	41.7	179	0XP	4
38	66		H	F/L	F/L		050	610SM	TEH+ 3.0	21.5	182	0XP	4
41	66		H	F/L	F/L		050	610SM	TEH+ 1.5	25.0	6	0XP	4
42	66		H	F/L	F/L		050	610SM	TEH+ 11.4	21.8	359	0XP	4
47	66		H	F/L	F/L		050	610SM	TEC+ 13.6 TO+ 18.5	31.4	359	0XP	4
20	67		H	F/L	F/L		051	610SM	TEC+ 1.0	30.5	179	0XP	4
35	67		H	F/L	F/L		051	610SM	TEC+ 4.4	21.8	178	0XP	4
36	67		H	F/L	F/L		051	610SM	TEC+ 4.9	28.8	357	0XP	4
41	67		H	F/L	F/L		051	610SM	TEC+ 6.6	30.1	0	0XP	4
47	67		H	F/L	F/L		051	610SM	TEC+ 6.2	20.6	355	0XP	4
45	68		H	F/L	F/L		051	610SM	TEH+ 1.0	36.2	4	0XP	4
8	69		H	F/L	F/L		052	610SM	TEH+ 15.0	20.7	178	0XP	4
38	69		H	F/L	F/L		053	610SM	TEH+ 1.7	50.5	3	0XP	4
			H	F/L	F/L		053	610SM	TEH+ 17.1	29.7	3	0XP	4
10	70		H	F/L	F/L		053	610SM	TEH+ 2.7 TO+ 4.7	26.3	182	0XP	4
13	70		H	F/L	F/L		053	610SM	TEC+ 8.3	44.8	182	0XP	4
20	70		H	F/L	F/L		053	610SM	TEC+ 14.9	20.1	3	0XP	4
27	70		H	F/L	F/L		053	610SM	TEC+ 7.1 TO+ 9.6	25.5	2	0XP	4
28	70		H	F/L	F/L		053	610SM	TEC+ 7.6 TO+ 10.5	29.6	359	0XP	4
40	70		H	F/L	F/L		053	610SM	TEC+ 6.5	21.3	0	0XP	4
			H	F/L	F/L		053	610SM	TEC+ 3.5	25.3	182	0XP	4
41	70		H	F/L	F/L		053	610SM	TEC+ 15.1	23.7	0	0XP	4
			H	F/L	F/L		053	610SM	TEC+ 12.0	20.9	353	0XP	4
42	70		H	F/L	F/L		053	610SM	TEC+ 6.2	22.3	356	0XP	4
46	70		H	F/L	F/L		053	610SM	TEH+ 21.6	21.1	358	0XP	4
15	71		H	F/L	F/L		054	610SM	TEH+ 21.8	21.9	174	0XP	4
26	71		H	F/L	F/L		054	610SM	TEC+ 1.6	21.2	171	0XP	4
28	71		H	F/L	F/L		054	610SM	TEC+ 1.4	23.2	180	0XP	4
13	72		H	F/L	F/L		055	610SM	TEC+ 2.0	20.6	180	0XP	4
33	72		H	F/L	F/L		055	610SM	TEC+ 1.8	38.1	180	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: OXP

PAGE: 3 OF 5
DATE: 08/09/88
TIME: 14:54:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	φ
13	73		H	F/L	F/L		055	610SM	TEH+ 8.0	26.9	180	0XP	4
7	74		H	F/L	F/L		057	610SM	TEC+ 18.0	22.5	0	0XP	4
			H	F/L	F/L		057	610SM	TEC+ 1.9	38.2	181	0XP	4
45	74		H	F/L	F/L		056	610SM	TEH+ 1.3	33.8	2	0XP	4
24	75		H	F/L	F/L		057	610SM	TEC+ 2.5	38.3	179	0XP	4
25	75		H	F/L	F/L		057	610SM	TEC+ 20.1 TO+ 21.8	24.2	359	0XP	4
38	75		H	F/L	F/L		058	610SM	TEH+ 1.6	26.2	3	0XP	4
			H	F/L	F/L		058	610SM	TEH+ 15.7	28.0	3	0XP	4
39	75		H	F/L	F/L		058	610SM	TEH+ 13.3	29.7	358	0XP	4
40	75		H	F/L	F/L		058	610SM	TEH+ 12.7	20.7	182	0XP	4
11	76		H	F/L	F/L		059	610SM	TEH+ 0.0 TO+ 5.0	21.5	357	0XP	4
			H	F/L	F/L		059	610SM	TEC+ 3.8	24.5	359	0XP	4
21	77		H	F/L	F/L		059	610SM	TEC+ 9.5	22.1	180	0XP	4
40	77		H	F/L	F/L		059	610SM	TEC+ 6.6	28.5	177	0XP	4
22	78		H	F/L	F/L		060	610SM	TEC+ 7.9	28.7	0	0XP	4
23	78		H	F/L	F/L		060	610SM	TEC+ 2.0	28.1	177	0XP	4
32	78		H	F/L	F/L		060	610SM	TEC+ 0.0 TO+ 4.1	40.5	181	0XP	4
47	78		H	F/L	F/L		060	610SM	TEC+ 15.0	26.2	179	0XP	4
12	81		H	F/L	F/L		062	610SM	TEC+ 18.9	28.0	179	0XP	4
13	81		H	F/L	F/L		062	610SM	TFC+ 18.3	22.4	174	0XP	4
18	81		H	F/L	F/L		063	610SM	TEH+ 17.1	44.6	4	0XP	4
26	81		H	F/L	F/L		063	610SM	TEC+ 8.1	20.5	177	0XP	4
			H	F/L	F/L		063	610SM	TEC+ 2.7	27.7	176	0XP	4
46	81		H	F/L	F/L		063	610SM	TEC+ 6.8	25.3	0	0XP	4
47	81		H	F/L	F/L		063	610SM	TEC+ 11.9	24.1	357	0XP	4
19	82		H	F/L	F/L		064	610SM	TEC+ 4.1	24.0	178	0XP	4
26	82		H	F/L	F/L		064	610SM	TEC+ 4.2	25.5	357	0XP	4
14	83		H	F/L	F/L		064	610SM	TEC+ 4.1	27.0	359	0XP	4
15	83		H	F/L	F/L		064	610SM	TEC+ 8.2	25.6	177	0XP	4
22	83		H	F/L	F/L		064	610SM	TEC+ 6.5	24.1	357	0XP	4
18	84		H	F/L	F/L		066	610SM	TEC+ 3.1 TO+ 9.1	21.7	0	0XP	4
25	84		H	F/L	F/L		065	610SM	TEC+ 4.7	24.1	177	0XP	4
37	84		H	F/L	F/L		065	610SM	TEC+ 7.6	30.2	0	0XP	4
41	84		H	F/L	F/L		065	610SM	TEC+ 8.2	27.5	356	0XP	4
42	84		H	F/L	F/L		065	610SM	TEC+ 6.6	24.6	357	0XP	4
6	85		H	F/L	F/L		066	610SM	TEC+ 2.8	23.5	174	0XP	4
13	85		H	F/L	F/L		066	610SM	TEC+ 2.8	21.9	174	0XP	4
21	85		H	F/L	F/L		066	610SM	TEC+ 2.7	35.8	179	0XP	4
28	85		H	F/L	F/L		066	610SM	TEH+ 5.1	21.3	0	0XP	4
38	85		H	F/L	F/L		067	610SM	TEH+ 9.0 TO+ 18.8	23.1	3	0XP	4
39	85		H	F/L	F/L		067	610SM	TEH+ 15.4	22.5	358	0XP	4
47	85		H	F/L	F/L		067	610SM	TEH+ 2.6	21.2	0	0XP	4
			H	F/L	F/L		067	610SM	TEC+ 6.4	22.2	0	0XP	4
9	86		H	F/L	F/L		067	610SM	TEC+ 3.5	24.4	0	0XP	4
16	86		H	F/L	F/L		067	610SM	TEC+ 1.5	21.1	358	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: OXP

PAGE: 4 OF 5
DATE: 08/09/88
TIME: 14:54:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	%
20	86		H	F/L	F/L		067	610SM	TEC+ 4.1	20.5	173	0XP	4
21	86		H	F/L	F/L		067	610SM	TEC+ 5.6	24.4	180	0XP	4
36	86		H	F/L	F/L		067	610SM	TEC+ 7.6	23.2	358	0XP	4
37	86		H	F/L	21C	RIT	068	610SM	TEH+ 4.1	20.9	178	0XP	4
41	86		H	F/L	F/L		068	610SM	TEH+ 1.7	26.2	177	0XP	4
			H	F/L	F/L		068	610SM	TEC+ 6.0	24.9	359	0XP	4
5	87		H	F/L	F/L		068	610SM	TEC+ 7.7 TO+ 11.9	24.9	359	0XP	4
18	87		H	F/L	F/L		068	610SM	TEH+ 17.8	33.2	3	0XP	4
20	87		H	F/L	F/L		068	610SM	TEH+ 13.7	23.1	358	0XP	4
24	87		H	F/L	F/L		068	610SM	TEH+ 21.1	21.9	2	0XP	4
27	87		H	F/L	F/L		068	610SM	TEH+ 11.7	30.3	0	0XP	4
28	87		H	F/L	F/L		068	610SM	TEH+ 16.8	24.8	0	0XP	4
36	87		H	F/L	F/L		068	610SM	TEH+ 20.3	20.4	358	0XP	4
47	87		H	F/L	F/L		068	610SM	TEC+ 12.3	30.1	180	0XP	4
29	88		H	F/L	F/L		069	610SM	TEC+ 3.4	33.2	0	0XP	4
30	88		H	F/L	F/L		069	610SM	TEC+ 7.2	28.4	358	0XP	4
31	88		H	F/L	F/L		069	610SM	TEC+ 8.3	24.0	355	0XP	4
33	88		H	F/L	F/L		069	610SM	TEC+ 8.2	31.5	353	0XP	4
47	88		H	F/L	F/L		069	610SM	TEC+ 4.0	28.3	0	0XP	4
17	89		H	F/L	F/L		070	610SM	TEC+ 5.3	20.7	0	0XP	4
43	89		H	F/L	F/L		070	610SM	TEH+ 2.5	24.2	178	0XP	4
45	89		H	F/L	F/L		070	610SM	TEH+ 2.1	24.3	177	0XP	4
11	90		H	F/L	F/L		070	610SM	TEC+ 6.8	32.2	179	0XP	4
12	90		H	F/L	F/L		071	610SM	TEC+ 7.7	40.8	177	0XP	4
			H	F/L	F/L		071	610SM	TEC+ 6.6	20.2	354	0XP	4
14	90		H	F/L	F/L		071	610SM	TEC+ 7.1	21.4	177	0XP	4
16	90		H	F/L	F/L		071	610SM	TEC+ 7.8	20.1	177	0XP	4
			H	F/L	F/L		071	610SM	TEC+ 5.3	22.8	338	0XP	4
18	90		H	F/L	F/L		071	610SM	TEC+ 6.6	21.8	180	0XP	4
19	90		H	F/L	F/L		071	610SM	TEC+ 16.2	26.8	359	0XP	4
20	90		H	F/L	F/L		071	610SM	TEC+ 7.4	28.3	179	0XP	4
25	90		H	F/L	F/L		071	610SM	TEC+ 14.2	24.7	358	0XP	4
34	90		H	F/L	F/L		071	610SM	TEC+ 9.5 TO+ 14.5	25.3	0	0XP	4
36	90		H	F/L	F/L		071	610SM	TEC+ 10.1 TO+ 18.6	23.5	0	0XP	4
			H	F/L	F/L		071	610SM	TEC+ 8.6	21.1	180	0XP	4
			H	F/L	F/L		071	610SM	TEC+ 6.9	23.1	179	0XP	4
43	90		H	F/L	F/L		071	610SM	TEC+ 5.7	42.6	359	0XP	4
44	90		H	F/L	F/L		071	610SM	TEC+ 18.4	24.4	357	0XP	4
45	90		H	F/L	F/L		071	610SM	TEC+ 13.8 TO+ 16.5	25.3	357	0XP	4
46	90		H	F/L	F/L		071	610SM	TEC+ 5.8	30.7	0	0XP	4
8	91		H	F/L	F/L		072	610SM	TEC+ 6.3	27.0	180	0XP	4
9	91		H	F/L	F/L		072	610SM	TEC+ 19.2	25.8	180	0XP	4
38	91		H	F/L	F/L		071	610SM	TEC+ 15.6	23.4	2	0XP	4
			H	F/L	F/L		071	610SM	TEC+ 9.4	26.6	357	0XP	4
39	92		H	F/L	F/L		073	610SM	TEC+ 8.9	21.8	174	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: OXP

PAGE: 5 OF 5
DATE: 08/09/88
TIME: 14:54:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
40	92		H	F/L	F/L		073	610SM	TEC+ 6.5 TO+ 13.4	29.8		175	OXP	4
48	92		H	F/L	F/L		073	610SM	TEH+ 1.9	20.5		171	OXP	4
18	93		H	F/L	F/L		074	610SM	TEH+ 18.4	30.4		354	OXP	4
26	93		H	F/L	F/L		073	610SM	TEH+ 2.6	35.7		168	OXP	4
32	93		H	F/L	F/L		073	610SM	TEC+ 14.3 TO+ 22.5	25.2		350	OXP	4
35	93		H	F/L	F/L		073	610SM	TEC+ 9.3 TO+ 19.7	27.6		174	OXP	4
36	93		H	F/L	F/L		073	610SM	TEC+ 14.2	25.3		173	OXP	4
37	93		H	F/L	F/L		073	610SM	TEC+ 5.2 TO+ 11.3	21.8		173	OXP	4
40	93		H	F/L	F/L		073	610SM	TEC+ 8.5	20.8		169	OXP	4
32	94		H	F/L	F/L		074	610SM	TEC+ 12.8 TO+ 21.7	27.9		183	OXP	4
40	95		H	F/L	F/L		075	610SM	TEC+ 15.0	23.3		170	OXP	4
43	99		C	F/L	F/L		098	610SM	TEC+ 7.3	23.4		7	OXP	4
9	100		H	F/L	F/L		079	610SM	TEC+ 7.7	21.3		160	OXP	4
41	100		H	F/L	F/L		080	610SM	TEH+ 1.3 TO+ 7.3	20.6		9	OXP	4
1	101		H	F/L	F/L	RIT	080	610SM	TEH+ 1.3	26.2		2	OXP	4
2	101		H	F/L	F/L		080	610SM	TEH+ 1.1	21.1		0	OXP	4
4	101		H	F/L	F/L		090	610SM	TEH+ 1.2	21.6		2	OXP	4
41	102		C	F/L	F/L		098	610SM	TEC+ 16.0	20.6		8	OXP	4
10	109		H	F/L	F/L		086	610SM	TEC+ 4.8	22.3		6	OXP	4
28	110		H	F/L	F/L		087	610SM	TEC+ 5.0 TO+ 11.7	20.5		14	OXP	4
19	113		H	F/L	F/L		088	610SM	TEH+ 2.1	23.2		4	OXP	4
26	113		H	F/L	F/L		088	610SM	TEH+ 17.9	23.4		7	OXP	4
8	114		H	F/L	F/L		089	610SM	TEC+ 8.7	20.8		7	OXP	4
24	114		H	F/L	F/L		089	610SM	TEH+ 6.5 TO+ 15.7	33.0		4	OXP	4
25	114		H	F/L	F/L		089	610SM	TEH+ 3.8 TO+ 13.3	25.1		6	OXP	4
8	115		H	F/L	F/L		089	610SM	TEC+ 4.9	22.3		3	OXP	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 189

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: SKR

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:56:42

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	*	CH
21	21		H	F/L	F/L		012	610SM	TEH+ 1.4	20.4		0	SKR	4
43	37		H	F/L	F/L		026	610SM	TEH+ 17.9	27.7		5	SKR	4
14	69		H	F/L	F/L		052	610SM	TEH+ 4.0	22.1		355	SKR	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 3

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: TMR

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:57:01

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: PTE

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:57:20

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: NTE

PAGE: 1 OF 1
DATE: 08/08/88
TIME: 11:18:39

*** NO CALLS IN THIS RANGE ***

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: BLG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:57:44

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	*
35	49		H	F/L	F/L		036	610SM	TSH+ 0.9	3.6		3	BLG	1

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

APPENDIX - B

Steam Generator D

Tube Sheet Anomalies

ETL, OXP, SKR, TMR, PTE, NTE & BLG

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: ETL

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 15:02:48

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM					VOLTS	MIL	DEG	* CH
12	94		H	F/L	F/L		083	610SM	TSC+ 0.4	9.7		40	ETL	5

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: OXP

PAGE: 1 OF 6
DATE: 08/10/88
TIME: 12:25:27

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
2	1		H	F/L	F/L		005	610SM	TEC+ 3.3		26.0	178	0XP	4
8	1		H	F/L	F/L		001	610SM	TEH+ 0.0 TO+ 20.9		94.2	182	0XP	4
2	2		H	F/L	F/L		005	610SM	TEH+ 2.0		20.2	0	0XP	4
3	2		H	F/L	F/L		005	610SM	TEC+ 2.0		20.9	359	0XP	4
2	4		H	F/L	F/L		005	610SM	TEH+ 2.3		104.4	6	0XP	4
			H	F/L	F/L		005	610SM	TEH+ 9.4		26.5	356	0XP	4
11	6		H	F/L	F/L		002	610SM	TEC+ 5.3 TO+ 16.4		30.5	2	0XP	4
16	6		H	F/L	F/L		002	610SM	TEH+ 2.9		98.6	5	0XP	4
19	6		H	F/L	F/L		002	610SM	TEH+ 1.3 TO+ 9.8		69.0	180	0XP	4
22	6		H	F/L	F/L		002	610SM	TEC+ 2.1		64.9	4	0XP	4
24	6		H	F/L	F/L		002	610SM	TEH+ 10.3		20.5	0	0XP	4
2	7		H	F/L	F/L		005	610SM	TEC+ 3.3		76.5	183	0XP	4
5	7		H	F/L	F/L		002	610SM	TEH+ 1.9		47.7	3	0XP	4
7	7		H	F/L	F/L		003	610SM	TEH+ 1.8 TO+ 6.3		82.8	3	0XP	4
8	7		H	F/L	F/L		003	610SM	TEH+ 1.9		63.3	6	0XP	4
			H	F/L	F/L		003	610SM	TEH+ 20.5		36.8	0	0XP	4
11	7		H	F/L	F/L		003	610SM	TEH+ 4.5		33.4	4	0XP	4
19	8		H	F/L	F/L		003	610SM	TEC+ 16.3		25.9	182	0XP	4
			H	F/L	F/L		003	610SM	TEC+ 1.9		69.2	184	0XP	4
1	9		C	11C	11C		038	610SM	TEC+ 0.7 TO+ 4.8		39.6	5	0XP	4
4	9		H	F/L	F/L		003	610SM	TEC+ 1.9		31.9	359	0XP	4
5	9		H	F/L	F/L		003	610SM	TEC+ 2.0		24.0	0	0XP	4
7	9		H	F/L	F/L		003	610SM	TEC+ 2.6		22.3	0	0XP	4
2	10		H	F/L	F/L		005	610SM	TEH+ 1.5 TO+ 7.2		46.2	3	0XP	4
4	10		H	F/L	F/L		004	610SM	TEC+ 1.5 TO+ 7.1		31.1	4	0XP	4
12	10		H	F/L	F/L		004	610SM	TEC+ 1.8		56.3	181	0XP	4
13	10		H	F/L	F/L		004	610SM	TEC+ 19.6		21.5	0	0XP	4
28	10		H	F/L	F/L		004	610SM	TEH+ 1.7		74.8	5	0XP	4
			H	F/L	F/L		004	610SM	TEH+ 5.4		30.2	0	0XP	4
30	10		H	F/L	F/L		004	610SM	TEC+ 11.9		21.8	183	0XP	4
			H	F/L	F/L		004	610SM	TEC+ 1.6 TO+ 11.5		20.4	183	0XP	4
11	11		H	F/L	F/L		004	610SM	TEC+ 3.2 TO+ 8.6		27.5	182	0XP	4
21	11		H	F/L	F/L		004	610SM	TEH+ 1.4		46.4	2	0XP	4
22	11		H	F/L	F/L		004	610SM	TEC+ 2.1		22.7	2	0XP	4
26	11		H	F/L	F/L		005	610SM	TEH+ 1.1		64.6	4	0XP	4
			H	F/L	F/L		005	610SM	TEH+ 21.5		16.4	357	0XP	4
27	11		H	F/L	F/L		005	610SM	TEH+ 2.0		61.9	5	0XP	4
			H	F/L	F/L		005	610SM	TEH+ 13.9		25.8	0	0XP	4
5	12		H	F/L	F/L		005	610SM	TEH+ 1.6		49.3	0	0XP	4
11	12		H	F/L	F/L		005	610SM	TEC+ 1.5 TO+ 10.1		34.2	359	0XP	4
16	12		H	F/L	F/L		005	610SM	TEH+ 1.0 TO+ 6.5		58.8	2	0XP	4
17	12		H	F/L	F/L		005	610SM	TEC+ 1.9 TO+ 7.9		37.9	3	0XP	4
22	12		H	F/L	F/L		005	610SM	TEC+ 5.5		36.9	181	0XP	4
24	12		H	F/L	F/L		005	610SM	TEH+ 1.3		35.7	5	0XP	4
2	13		H	F/L	F/L		005	610SM	TEC+ 1.2		79.4	181	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: OXP

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ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	*
2	13		H	F/L	F/L		006	610SM	TEC+ 1.2	29.4	181	EXP	4
19	13		H	F/L	F/L		006	610SM	TEC+ 0.0 TO+ 10.9	38.0	182	EXP	4
22	14		H	F/L	F/L		006	610SM	TEH+ 4.7	38.6	1	EXP	4
34	14		H	F/L	F/L		006	610SM	TFH+ 0.0 TO+ 8.1	32.8	2	EXP	4
34	15		H	F/L	F/L		007	610SM	TEH+ 1.7	51.2	2	EXP	4
4	16		H	F/L	F/L		008	610SM	TEC+ 7.3	32.7	177	EXP	4
			H	F/L	F/L		008	610SM	TEC+ 2.5	92.7	187	EXP	4
13	16		H	F/L	F/L		008	610SM	TEC+ 1.3	60.9	3	EXP	4
8	18		H	F/L	F/L		009	610SM	TEH+ 2.7	49.2	2	EXP	4
11	18		H	F/L	F/L		009	610SM	TEC+ 10.0	34.1	180	EXP	4
			H	F/L	F/L		009	610SM	TEC+ 1.9	50.9	3	EXP	4
16	18		H	F/L	F/L		009	610SM	TEH+ 1.1	40.7	2	EXP	4
			H	F/L	F/L		009	610SM	TEH+ 4.9	20.2	0	EXP	4
1	18		H	F/L	F/L		009	610SM	TEC+ 6.7	36.0	180	EXP	4
			H	F/L	F/L		009	610SM	TEC+ 1.8	58.2	182	EXP	4
22	18		H	F/L	F/L		009	610SM	TEC+ 6.2	68.3	184	EXP	4
24	18		H	F/L	F/L		009	610SM	TEH+ 1.0	42.8	1	EXP	4
			H	F/L	F/L		009	610SM	TEH+ 9.8	21.7	358	EXP	4
19	19		H	F/L	F/L		009	610SM	TEC+ 11.1	20.5	177	EXP	4
			H	F/L	F/L		009	610SM	TEC+ 3.4	20.9	351	EXP	4
34	20		H	F/L	F/L		010	610SM	TEH+ 6.2	20.5	180	EXP	4
1	21		C	11C	11C		038	610SM	TEC+ 0.0 TO+ 2.8	25.3	3	EXP	4
8	21		H	F/L	F/L		011	610SM	TEH+ 0.1 TO+ 4.0	26.7	1	EXP	4
15	21		H	F/L	F/L		011	610SM	TEC+ 0.0 TO+ 7.3	39.4	183	EXP	4
30	22		H	F/L	F/L		012	610SM	TEC+ 0.0 TO+ 2.2	28.9	357	EXP	4
39	22		H	F/L	F/L		012	610SM	TEC+ 0.0 TO+ 18.1	21.8	183	EXP	4
			H	F/L	F/L		011	610SM	TEC+ 0.0 TO+ 18.0	21.5	180	EXP	4
7	23		H	F/L	F/L		012	610SM	TEC+ 0.0 TO+ 16.6	23.9	175	EXP	4
26	23		H	F/L	F/L		013	610SM	TEH+ 1.0	34.9	2	EXP	4
			H	F/L	F/L		013	610SM	TEH+ 21.0	28.2	0	EXP	4
32	24		H	F/L	F/L		013	610SM	TEH+ 15.6	20.3	3	EXP	4
2	25		H	F/L	F/L		014	610SM	TEC+ 6.2	23.9	176	EXP	4
22	26		H	F/L	F/L		015	610SM	TEH+ 4.6	36.0	355	EXP	4
40	26		H	F/L	F/L		015	610SM	TEH+ 2.8	22.1	5	EXP	4
			H	F/L	F/L		015	610SM	TEH+ 13.1	25.0	0	EXP	4
41	26		H	F/L	F/L		015	610SM	TEH+ 13.8	27.7	177	EXP	4
46	26		H	F/L	F/L		015	610SM	TEH+ 3.0	23.1	0	EXP	4
1	27		C	11C	11C		038	610SM	TEC+ 2.6	48.9	6	EXP	4
8	27		H	F/L	F/L		016	610SM	TEH+ 5.5	20.1	0	EXP	4
15	27		H	F/L	F/L		016	610SM	TEC+ 0.0 TO+ 9.8	26.1	182	EXP	4
16	27		H	F/L	F/L		016	610SM	TEH+ 2.5	25.9	0	EXP	4
44	27		H	F/L	F/L		017	610SM	TEH+ 1.5	49.3	3	EXP	4
			H	F/L	F/L		017	610SM	TEH+ 6.0	22.0	0	EXP	4
45	27		H	F/L	F/L		017	610SM	TEC+ 8.2	20.1	182	EXP	4
8	30		H	F/L	F/L		019	610SM	TEH+ 2.1	77.2	2	EXP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
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ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
2	31		H	F/L	F/L		019	610SM	TEC+ 0.0 TO+ 6.8	33.5		178	0XP	4
38	31		H	F/L	F/L		020	610SM	TEC+ 2.5	88.6		185	0XP	4
31	32		H	F/L	F/L		020	610SM	TEH+ 15.1	21.0		0	0XP	4
15	33		H	F/L	F/L		021	610SM	TEC+ 5.2	20.7		180	0XP	4
			H	F/L	F/L		021	610SM	TEC+ 1.9	54.3		184	0XP	4
35	33		H	F/L	F/L		022	610SM	TEH+ 1.6	50.9		2	0XP	4
			H	F/L	F/L		022	610SM	TEH+ 4.5	20.1		0	0XP	4
45	33		H	F/L	F/L		022	610SM	TEC+ 7.4	33.4		182	0XP	4
			H	F/L	F/L		022	610SM	TEC+ 1.1	57.6		185	0XP	4
7	35		H	F/L	F/L		023	610SM	TEC+ 1.0 TO+ 15.9	27.1		180	0XP	4
32	36		H	F/L	F/L		024	610SM	TEH+ 2.4	42.9		4	0XP	4
			H	F/L	F/L		024	610SM	TEH+ 20.8	34.5		0	0XP	4
34	40		H	F/L	F/L		028	610SM	TEC+ 6.2	25.3		180	0XP	4
2	41		H	F/L	F/L		029	610SM	TEC+ 1.5 TO+ 18.2	24.5		180	0XP	4
10	41		H	F/L	F/L		029	610SM	TEH+ 8.4 TO+ 20.4	20.3		0	0XP	4
11	41		H	F/L	F/L		029	610SM	TEH+ 9.6	24.7		2	0XP	4
46	42		H	F/L	F/L		030	610SM	TEC+ 2.4	44.8		182	0XP	4
4	45		H	F/L	F/L		033	610SM	TEH+ 1.6	25.0		180	0XP	4
15	45		H	F/L	F/L		032	610SM	TEC+ 0.0 TO+ 14.2	27.6		177	0XP	4
20	46		H	F/L	F/L		033	610SM	TEH+ 1.6	28.0		0	0XP	4
25	46		H	F/L	F/L		033	610SM	TEC+ 4.2	20.5		184	0XP	4
34	46		H	F/L	F/L		033	610SM	TEC+ 4.9	33.6		5	0XP	4
			H	F/L	F/L		033	610SM	TEC+ 1.9	29.9		185	0XP	4
37	46		H	F/L	F/L		033	610SM	TEC+ 21.8	21.4		4	0XP	4
2	47		H	F/L	F/L		035	610SM	TEC+ 19.1	26.3		180	0XP	4
			H	F/L	F/L		035	610SM	TEC+ 3.7	71.1		182	0XP	4
2	49		H	F/L	F/L		037	610SM	TEC+ 0.1 TO+ 2.4	49.5		0	0XP	4
15	51		H	F/L	F/L		039	610SM	TEH+ 1.9	25.7		6	0XP	4
4	52		H	F/L	F/L		039	610SM	TEH+ 1.5	21.5		9	0XP	4
6	52		H	F/L	F/L		039	610SM	TEH+ 1.6	30.8		10	0XP	4
15	52		H	F/L	F/L		039	610SM	TEH+ 1.7	22.7		9	0XP	4
25	52		H	F/L	F/L		040	610SM	TEC+ 0.7 TO+ 4.9	41.9		3	0XP	4
32	52		H	F/L	F/L		040	610SM	TEC+ 11.3 TO+ 16.1	20.3		179	0XP	4
30	53		H	F/L	F/L		040	610SM	TEC+ 0.7 TO+ 6.6	22.4		2	0XP	4
5	54		H	F/L	F/L		041	610SM	TEC+ 0.3 TO+ 3.3	24.3		187	0XP	4
2	55		H	F/L	F/L		042	610SM	TEC+ 20.8	21.1		169	0XP	4
13	55		H	F/L	F/L		042	610SM	TEC+ 1.3 TO+ 6.0	35.8		1	0XP	4
3	58		H	F/L	F/L		044	610SM	TEC+ 1.4	52.6		352	0XP	4
25	58		H	F/L	F/L		045	610SM	TEC+ 0.0 TO+ 4.8	48.0		194	0XP	4
32	58		H	F/L	F/L		045	610SM	TEC+ 0.0 TO+ 3.1	24.6		191	0XP	4
30	59		H	F/L	F/L		045	610SM	TEC+ 6.2 TO+ 8.8	28.3		190	0XP	4
			H	F/L	F/L		045	610SM	TEC+ 0.3 TO+ 1.8	23.7		196	0XP	4
15	60		H	F/L	F/L		047	610SM	TEH+ 15.0 TO+ 19.3	21.8		177	0XP	4
3	61		H	F/L	F/L		047	610SM	TEC+ 3.7	28.6		179	0XP	4
13	61		H	F/L	F/L		047	610SM	TEC+ 5.3	23.1		178	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: OXP

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DATE: 08/10/88
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ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM				VOLTS	MIL	DEG	%
16	63		H	F/L	F/L		049	610SM	TEC+ 1.3	79.0	197	0XP	4
30	63		H	F/L	F/L		050	610SM	TEC+ 1.0	27.1	175	0XP	4
27	64		H	F/L	F/L		052	610SM	TEC+ 1.7 TO+ 19.3	29.4	190	0XP	4
35	64		H	F/L	F/L		050	610SM	TEH+ 2.0	53.1	358	0XP	4
			H	F/L	F/L		050	610SM	TEH+ 4.9	23.2	0	0XP	4
			H	F/L	F/L		050	610SM	TEH+ 16.5	20.7	354	0XP	4
47	65		H	F/L	F/L		053	610SM	TEC+ 5.8	26.1	180	0XP	4
43	66		H	F/L	F/L		053	610SM	TEH+ 16.0	24.2	358	0XP	4
			H	F/L	F/L		053	610SM	TEH+ 19.5	22.4	355	0XP	4
33	67		H	F/L	F/L		054	610SM	TEH+ 0.0 TO+ 2.6	93.6	357	0XP	4
			H	F/L	F/L		054	610SM	TEH+ 2.5 TO+ 4.8	63.3	358	0XP	4
16	69		H	F/L	F/L		055	610SM	TEC+ 2.6 TO+ 0.0	36.6	197	0XP	4
30	69		H	F/L	F/L		055	610SM	TEC+ 3.4	37.6	197	0XP	4
			H	F/L	F/L		055	610SM	TEC+ 1.0	24.9	19	0XP	4
45	69		H	F/L	F/L		056	610SM	TEC+ 2.3	25.9	351	0XP	4
3	70		H	F/L	F/L		057	610SM	TEC+ 4.0 TO+ 21.3	33.7	191	0XP	4
			H	F/L	F/L		057	610SM	TEC+ 0.1 TO+ 3.8	61.4	197	0XP	4
27	70		H	F/L	F/L		056	610SM	TEC+ 2.6	34.2	359	0XP	4
35	70		H	F/L	F/L		056	610SM	TEH+ 0.2 TO+ 15.6	73.7	357	0XP	4
46	71		H	F/L	F/L		058	610SM	TEC+ 7.9	22.5	180	0XP	4
			H	F/L	F/L		058	610SM	TEC+ 2.7	22.8	3	0XP	4
			H	F/L	F/L		058	610SM	TEC+ 1.2	73.2	183	0XP	4
47	71		H	F/L	F/L		058	610SM	TEC+ 5.6	24.8	180	0XP	4
43	72		H	F/L	F/L		058	610SM	TEH+ 18.7	32.5	1	0XP	4
27	73		H	F/L	F/L		059	610SM	TEC+ 5.9	21.0	0	0XP	4
			H	F/L	F/L		059	610SM	TEC+ 1.1	78.2	182	0XP	4
28	73		H	F/L	F/L		059	610SM	TEC+ 0.0 TO+ 6.1	30.2	0	0XP	4
33	73		H	F/L	F/L		059	610SM	TEH+ 2.0	125.7	3	0XP	4
			H	F/L	F/L		059	610SM	TEH+ 4.2 TO+ 20.0	31.8	178	0XP	4
43	73		H	F/L	F/L		059	610SM	TEC+ 3.4	25.8	176	0XP	4
30	75		H	F/L	F/L		061	610SM	TEC+ 0.0 TO+ 3.7	30.6	189	0XP	4
3	76		H	F/L	F/L		062	610SM	TEC+ 20.2	41.7	196	0XP	4
4	76		H	F/L	F/L		062	610SM	TEC+ 15.1	32.9	19	0XP	4
23	77		H	F/L	F/L		062	610SM	TEH+ 9.7	27.2	18	0XP	4
44	77		H	F/L	F/L		063	610SM	TEH+ 17.9	20.4	358	0XP	4
43	78		H	F/L	F/L		063	610SM	TEH+ 15.6	21.1	180	0XP	4
2	79		H	F/L	F/L		063	610SM	TEC+ 0.3 TO+ 19.1	27.3	173	0XP	4
46	83		H	F/L	F/L		067	610SM	TEH+ 6.7	21.1	197	0XP	4
30	84		H	F/L	F/L		068	610SM	TEH+ 16.6	42.6	10	0XP	4
38	86		H	F/L	F/L		070	610SM	TEH+ 0.0 TO+ 4.6	33.3	195	0XP	4
3	87		H	F/L	F/L		073	610SM	TEC+ 6.2	24.2	3	0XP	4
22	87		H	F/L	F/L		071	610SM	TEH+ 10.7	20.0	165	0XP	4
27	87		H	F/L	F/L		071	610SM	TEH+ 9.0	20.8	164	0XP	4
2	88		H	F/L	F/L		095	610SM	TEC+ 6.1	33.9	197	0XP	4
			H	F/L	F/L		075	610SM	TEC+ 6.0	33.6	193	0XP	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STFAM GENERATOR: D
LOCATION: ALL
CRITERIA: OXP

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ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
20	89		H	F/L	F/L		075	610SM	TEH+ 7.9	21.2		195	OXF	4
27	89		H	F/L	F/L		075	610SM	TEH+ 6.6 TO+ 9.2	20.1		193	OXF	4
43	89		H	F/L	F/L		075	610SM	TFH+ 8.9	20.7		193	OXF	4
26	90		H	F/L	F/L		077	610SM	TEH+ 10.0	20.0		168	OXF	4
43	90		H	F/L	F/L		077	610SM	TEH+ 9.4	22.8		353	OXF	4
1	91		H	F/L	11C	RIT	079	610SM	TEH+ 8.6 TO+ 11.2	20.3		163	OXF	4
20	91		H	F/L	F/L		079	610SM	TEH+ 8.3	22.5		166	OXF	4
18	92		H	F/L	F/L		081	610SM	TEC+ 1.8	43.7		198	OXF	4
45	92		H	F/L	F/L		081	610SM	TEC+ 2.6 TO+ 0.5	30.8		196	OXF	4
46	92		H	F/L	F/L		081	610SM	TEC+ 1.0	49.6		197	OXF	4
7	94		H	F/L	F/L		083	610SM	TEC+ 1.7	23.8		182	OXF	4
9	97		H	F/L	F/L		088	610SM	TEC+ 7.4 TO+ 21.0	19.3		15	OXF	4
15	97		H	F/L	F/L		088	610SM	TEC+ 11.3 TO+ 8.6	20.1		195	OXF	4
27	98		H	F/L	F/L		089	610SM	TEC+ 9.3 TO+ 6.9	21.9		194	OXF	4
32	98		H	F/L	F/L		089	610SM	TEC+ 9.8	21.9		194	OXF	4
23	99		H	F/L	F/L		091	610SM	TEC+ 2.0	32.0		18	OXF	4
32	100		H	F/L	F/L		091	610SM	TEC+ 15.5	29.5		184	OXF	4
39	101		C	F/L	F/L		092	610SM	TEC+ 14.4 TO+ 17.8	20.2		193	OXF	4
9	103		C	F/L	F/L		087	610SM	TEC+ 4.0 TO+ 6.6	25.0		189	OXF	4
10	103		C	F/L	F/L		087	610SM	TEC+ 5.4	22.2		9	OXF	4
23	105		C	F/L	F/L		085	610SM	TEC+ 0.3 TO+ 2.4	46.6		8	OXF	4
35	107		C	F/L	F/L		082	610SM	TEH+ 0.0 TO+ 2.1	28.9		188	OXF	4
2	108		C	F/L	F/L		080	610SM	TEH+ 18.6 TO+ 20.1	28.3		192	OXF	4
3	109		C	F/L	F/L		078	610SM	TEC+ 20.9	21.0		12	OXF	4
			C	F/L	F/L		078	610SM	TEC+ 2.6	38.9		7	OXF	4
23	111		C	F/L	F/L		076	610SM	TEC+ 0.3 TO+ 5.6	25.3		353	OXF	4
2	112		C	F/L	F/L		076	610SM	TEC+ 5.5 TO+ 14.4	22.4		350	OXF	4
2	113		C	F/L	F/L		074	610SM	TEC+ 11.5	21.1		10	OXF	4
3	113		C	F/L	F/L		074	610SM	TEH+ 15.3	21.3		193	OXF	4
			C	F/L	F/L		074	610SM	TEC+ 12.1	23.5		15	OXF	4
5	113		C	F/L	F/L		074	610SM	TEH+ 1.2	23.7		189	OXF	4
9	113		C	F/L	F/L		074	610SM	TEC+ 2.6	26.8		187	OXF	4
10	113		C	F/L	F/L		074	610SM	TEC+ 12.3	24.9		196	OXF	4
1	114		C	F/L	11C	RIT	046	610SM	TEC+ 12.1	25.2		349	OXF	4
			C	F/L	11C	RIT	074	610SM	TEC+ 6.6	21.1		195	OXF	4
			C	F/L	11C	RIT	046	610SM	TEC+ 6.4	29.8		180	OXF	4
			C	F/L	11C	RIT	074	610SM	TEC+ 1.1	54.5		16	OXF	4
8	114		C	F/L	F/L		074	610SM	TEC+ 0.8	33.2		191	OXF	4
			C	F/L	F/L		074	610SM	TEH+ 1.5	22.8		191	OXF	4
16	115		C	F/L	F/L		072	610SM	TEH+ 7.1 TO+ 9.3	22.4		186	OXF	4
1	117		C	F/L	11C	RIT	046	610SM	TEC+ 1.6	23.1		355	OXF	4
1	118		C	F/L	11C	RIT	069	610SM	TEC+ 0.3 TO+ 1.6	45.4		353	OXF	4
			C	F/L	11C	RIT	046	610SM	TEC+ 1.1	40.8		356	OXF	4
1	120		C	F/L	11C	RIT	069	610SM	TEC+ 13.3	22.6		358	OXF	4
			C	F/L	11C	RIT	046	610SM	TEC+ 13.1	21.3		350	OXF	4

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: OXP

PAGE: 6 OF 6
DATE: 08/10/88
TIME: 12:25:27

ROW	COL	HEAT#	LEG	EXTENT					REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM	REEL	PROBE				VOLTS	MIL	DEG	*
1	120		C	F/L	11C	RIT	046	610SM	TEC+	1.2	34.4		359	OXP	4
			C	F/L	11C	RIT	069	610SM	TEC+	1.1	45.9		2	OXP	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 181

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
 LOCATION: ALL
 CRITERIA: SKR

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 15:06:49

ROW	COL	HEAT#	LEG	EXTENT		REM	REEL	PROBE	LOCATION	CURRENT				
				REQ	TST					VOLTS	MIL	DEG	*	CH
7	29		H	F/L	F/L		018	610SM	TEC+ 16.6 TO+ 22.5	21.0		176	SKR	4
3	58		H	F/L	F/L		044	610SM	TEC+ 20.4	28.8		180	SKR	4
			H	F/L	F/L		044	610SM	TEC+ 18.0	22.4		0	SKR	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 2

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: TMR

PAGE: 1 Of 1
DATE: 08/05/37
TIME: 15:07:15

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	*	CH
35	36		H	F/L	F/L		024	610SM	TSH- 0.3	8.9		8	TMR	M2
35	65		H	F/L	F/L		052	610SM	TSH- 0.3	24.7		3	TMR	M2
9	95		H	F/L	F/L		086	610SM	TSH- 0.3	13.2		3	TMR	M2

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 3

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
 LOCATION: ALL
 CRITERIA: PTE

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 15:07:37

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM					VOLTS	MIL	DEG	*	CH
29	66		H	F/L	F/L		053	610SM	TEL	0.0 TO+ 22.1	13.5		0	PTE	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
 LOCATION: ALL
 CRITERIA: NTE

PAGE: 1 OF 1
 DATE: 08/08/88
 TIME: 11:23:06

ROW	COL	HEAT#	LEG	EXTENT			REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM				VOLTS	MIL	DEG	%	CH
29	13		H	F/L	F/L		006	610SM	TSH+ 0.0	11.3		315	NTE	4

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 1

NO TREND ANALYSIS REQUESTED

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
LOCATION: ALL
CRITERIA: BLG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 15:07:56

*** NO CALLS IN THIS RANGE ***

CONAM

APPENDIX - C

Steam Generator A

Tubes Removed From Service

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: A
 LOCATION: ALL
 CRITERIA: PLG

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 14:12:52

ROW	COL	HEAT#	LEG	EXTENT		REM	REEL	PROBE	LOCATION	CURRENT			
				REQ	TST					VOLTS	MIL	DEG	* CH
3	20		C	F/L									PLG
21	20		C	F/L									PLG
31	20		C	F/L									PLG
34	20		C	F/L									PLG
35	20		C	F/L									PLG
21	34		C	F/L									PLG
31	34		C	F/L									PLG
3	40		C	F/L				M					PLG
3	61		H	F/L									PLG
9	66		H	F/L									PLG
3	81		H	F/L									PLG
21	87		H	F/L									PLG
31	87		H	F/L									PLG
3	101		H	F/L									PLG
21	101		H	F/L									PLG
51	101		H	F/L									PLG

NUMBER OF SSES SELECTED FROM CURRENT OUTAGE: 16

NO TREND ANALYSIS REQUESTED

APPENDIX - C

Steam Generator B

Tubes Removed From Service

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: B
LOCATION: ALL
CRITERIA: PLG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:22:03

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT				
				REQ	TST	REM	REEL				VOLTS	MIL	DEG	%	CH
3	20		H	F/L										PLG	
21	20		H	F/L										PLG	
31	20		H	F/L										PLG	
21	34		H	F/L										PLG	
31	34		H	F/L										PLG	
3	40		H	F/L										PLG	
3	60		H	F/L										PLG	
3	81		H	F/L										PLG	
21	87		H	F/L										PLG	
31	87		H	F/L										PLG	
3	101		H	F/L										PLG	
21	101		H	F/L										PLG	
31	101		H	F/L										PLG	

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 13

NO TREND ANALYSIS REQUESTED

APPENDIX - C

Steam Generator C

Tubes Removed From Service

CUMULATIVE REPORT
04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: C
LOCATION: ALL
CRITERIA: PLG

PAGE: 1 OF 1
DATE: 08/09/88
TIME: 14:52:14

ROW	COL	HEAT#	LEG	EXTENT		REM	REEL	PROBE	LOCATION	CURRENT			
				REQ	TST					VOLTS	MIL	DEG	* CH
3	20		H	F/L									PLG
21	20		H	F/L									PLG
31	20		H	F/L									PLG
31	21		H	F/L									PLG
3	24		C	F/L									PLG
21	34		H	F/L									PLG
31	34		H	F/L									PLG
3	40		H	F/L									PLG
40	40		H	F/L									PLG
3	49		H	F/L									PLG
4	49		H	F/L									PLG
5	49		H	F/L									PLG
3	50		H	F/L									PLG
4	50		H	F/L									PLG
5	50		H	F/L									PLG
3	61		H	F/L									PLG
			H	F/L									PLG
3	81		H	F/L									PLG
21	87		H	F/L									PLG
31	87		H	F/L									PLG
3	101		H	F/L									PLG
21	101		H	F/L									PLG
31	101		H	F/L									PLG

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 22

NO TREND ANALYSIS REQUESTED

APPENDIX - C

Steam Generator D

Tubes Removed From Service

CUMULATIVE REPORT
 04/87, SOUTH TEXAS PROJECT, UNIT 2

STEAM GENERATOR: D
 LOCATION: ALL
 CRITERIA: PLG

PAGE: 1 OF 1
 DATE: 08/09/88
 TIME: 15:02:20

ROW	COL	HEAT#	LEG	EXTENT				REEL	PROBE	LOCATION	CURRENT			
				REQ	TST	REM	REEL				VOLTS	MIL	DEG	CH
3	20		H	F/L									PLG	
21	20		H	F/L									PLG	
31	20		H	F/L									PLG	
48	27		H	F/L									PLG	
			C	F/L									PLG	
21	34		H	F/L									PLG	
31	34		H	F/L									PLG	
3	40		H	F/L									PLG	
3	60		H	F/L									PLG	
3	81		H	F/L									PLG	
21	87		H	F/L									PLG	
31	87		H	F/L									PLG	
2	95		H	F/L									PLG	
3	101		C	F/L									PLG	
21	101		C	F/L									PLG	
31	101		C	F/L									PLG	

NUMBER OF TUBES SELECTED FROM CURRENT OUTAGE: 15

NO TREND ANALYSIS REQUESTED

APPENDIX - D

Steam Generator A

Form NIS-1 "Owner's Report for Inservice Inspection"

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Houston Lighting & Power Company, Electric Tower P.O. Box 1700, Houston, Texas 77001

2. Plant South Texas Project Electric Generating Station, P.O. Box 308, Bay City, Texas 77414
(Name and Address of Plant)

3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.

5. Commercial Service Date N.A. 6. National Board Number for Unit N.A.

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
Steam Generator A 1R122NSG201A	Westinghouse	2151	29

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FOI/M NIS-1 (Back)

- 8. Examination Dates 04/09/87 to 09/29/87 9. Inspection Interval from --- to PSI
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Supplement Sheet
- 11. Abstract of Conditions Noted See Supplement Sheet
- 12. Abstract of Corrective Measures Recommended and Taken See Supplement Sheet

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N.A. Expiration Date N.A.
 Date August 18 19 88 Signed Houston Lighting & Power Company By [Signature]
 Owner

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 Lumbermens Mutual Casualty Long Grove, ILL. have inspected the components described in this Owner's Report during the period 4-9-87 to 8-19-88, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's 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 or connected with this inspection.

[Signature] Commissions Tex 826
 Inspector's Signature National Board, State, Province, and Endorsements
 Date 8-19- 19 88
B. R. Russell

Sperry 3/18/88
Brussard 8-19-88

SUPPLEMENT
for
STEAM GENERATOR A
1R122NSG201A

- 1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700,
Houston, Texas 77001
(Name and Address of Owner)
- 2. Plant South Texas Project Electric Generating Station;
P.O. Box 308, Bay City, Texas 77414
(Name and Address of Plant)
- 3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.
- 5. Commercial Service Date N/A 6. National Board Number for Unit N/A

ABSTRACT OF EXAMINATIONS

The Section XI Category B-Q Item No. B16.20 volumetric examination was completed in the entire length of all tubes not removed from service from tube end to tube end.

ABSTRACT OF CONDITIONS NOTED

No flaw was noted with a depth greater than or equal to 20% of the nominal tube wall thickness.

ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

No corrective measures were recommended or taken because of defects unacceptable to Section XI requirements.

APPENDIX - D

Steam Generator B

Form NIS-1 "Owner's Report for Inservice Inspection"

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700
Houston, Texas 77001

2. Plant South Texas Project Electric Generating Station, P.U. Box 308
Bay City, Texas 77414
(Name and Address of Plant)

3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.

5. Commercial Service Date N.A. 6. National Board Number for Unit N.A.

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.		National Board No.
Steam Generator B 1R122NSG201B	Westinghouse	2152		30

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (Back)

8. Examination Dates 04/09/87 to 09/29/87 9. Inspection Interval from --- to PSI

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Supplement Sheet

11. Abstract of Conditions Noted See Supplement Sheet

12. Abstract of Corrective Measures Recommended and Taken See Supplement Sheet

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N.A. Expiration Date N.A.
Date August 18 19 88 Signed Houston Lighting & Power Company By [Signature]
Owner

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 Lumbermens Mutual Casualty Long Grove, ILL. have inspected the components described in this Owner's Report during the period 4-9-87 to 8-19-88, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's 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 or connected with this inspection.

[Signature] Commissions Tex 826
Inspector's Signature National Board, State, Province, and Endorsements
Date B. R. Russell 19 88

2/2/88 8/19/88
Blum 8-19-88

SUPPLEMENT
 for
 STEAM GENERATOR B
 1R122NSG201B

1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700,
Houston, Texas 77001
 (Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station;
P.O. Box 308, Bay City, Texas 77414
 (Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.
5. Commercial Service Date N/A 6. National Board Number for Unit N/A

ABSTRACT OF EXAMINATIONS

The Section XI Category B-Q Item No. B16.20 volumetric examination was completed in the entire length of all tubes not removed from service from tube end to tube end.

ABSTRACT OF CONDITIONS NOTED

No flaw was noted with a depth greater than or equal to 20% of the nominal tube wall thickness.

ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

No corrective measures were recommended or taken because of defects unacceptable to Section XI requirements.

APPENDIX - D

Steam Generator C

Form NIS-1 "Owner's Report for Inservice Inspection"

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700, Houston, Texas 77001
(Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station, P.O. Box 308, Bay City, Texas 77414
(Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.
5. Commercial Service Date N.A. 6. National Board Number for Unit N.A.
7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
Steam Generator C 1R122NSG201C	Westinghouse	2153	31

Note: Supplemental sheets in form of photographs, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 7 of this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (Back)

- 8. Examination Dates 04/09/87 to 09/29/87 9. Inspection Interval from --- to PSI
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Supplement Sheet
- 11. Abstract of Conditions Noted See Supplement Sheet
- 12. Abstract of Corrective Measures Recommended and Taken See Supplement Sheet

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N.A. Expiration Date N.A.
 Date August 18 19 88 Signed Houston Lighting & Power Company By [Signature]
 Owner

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 Lumbermens Mutual Casualty Long Grove, Ill. have inspected the components described in this Owner's Report during the period 4-9-87 to 8-19-88, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's 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 or connected with this inspection.

[Signature] Commissions Tex 826
 Inspector's Signature National Board, State, Province, and Endorsements
 Date B. R. Russell 19 88

St. Davids 8/18/88
DL 8-19-88

SUPPLEMENT
 for
 STEAM GENERATOR C
 1R122NSG201C

1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700,
Houston, Texas 77001
 (Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station;
P.O. Box 308, Bay City, Texas 77414
 (Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.
5. Commercial Service Date N/A 6. National Board Number for Unit N/A

ABSTRACT OF EXAMINATIONS

The Section XI Category B-Q Item No. B16.20 volumetric examination was completed in the entire length of all tubes not removed from service from tube end to tube end.

ABSTRACT OF CONDITIONS NOTED

No flaw was noted with a depth greater than or equal to 20% of the nominal tube wall thickness.

ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

No corrective measures were recommended or taken because of defects unacceptable to Section XI requirements. (One (1) tube was plugged because the tube sheet expansion extended above the tube sheet secondary face.)

APPENDIX - D

Steam Generator D

Form NIS-1 "Owner's Report for Inservice Inspection"

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

Houston Lighting & Power Company; Electric Tower P.O. Box 1700

1. Owner Houston, Texas 77001
(Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station
P.O. Box 308 Bay City, Texas 77414
(Name and Address of Plant)
3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.
5. Commercial Service Date N.A. 6. National Board Number for Unit N.A.
7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
Steam Generator D 1R122NSG201D	Westinghouse	2154	32

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (Back)

- 8. Examination Dates 04/09/87 to 09/29/87 9. Inspection Interval from --- to PSI
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Supplement Sheet
- 11. Abstract of Conditions Noted See Supplement Sheet
- 12. Abstract of Corrective Measures Recommended and Taken See Supplement Sheet

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N.A. Expiration Date N.A.
 Date August 18 19 88 Signed Houston Lighting & Power Company By [Signature]
 Owner

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 Lumbermens Mutual Casualty Long Grove, Ill. have inspected the components described in this Owner's Report during the period 4-9-87 to 8-19-87 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's 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 or connected with this inspection.

[Signature] Commissions 70826
 B. R. Russell Inspector's Signature National Board, State, Province, and Endorsements
 Date 8-19- 19 88

L. J. Jewell 8/18/88
B. L. ... 8-18-88

SUPPLEMENT
for
STEAM GENERATOR D
1R122NSG201D

1. Owner Houston Lighting & Power Company; Electric Tower, P.O. Box 1700,
Houston, Texas 77001
(Name and Address of Owner)

2. Plant South Texas Project Electric Generating Station;
P.O. Box 308, Bay City, Texas 77414
(Name and Address of Plant)

3. Plant Unit 2 4. Owner Certificate of Authorization (if required) N.A.

5. Commercial Service Date N/A 6. National Board Number for Unit N/A

ABSTRACT OF EXAMINATIONS

The Section XI Category B-Q Item No. B16.20 volumetric examination was completed in the entire length of all tubes not removed from service from tube end to tube end.

ABSTRACT OF CONDITIONS NOTED

No flaw was noted with a depth greater than or equal to 20% of the nominal tube wall thickness.

ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

No corrective measures were recommended or taken because of defects unacceptable to Section XI requirements.