

## 1RE02 INSERVICE INSPECTION SUMMARY REPORT FOR WELDS AND COMPONENT SUPPORTS

of the

## SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION - UNIT 1 P.O. Box 289 Wadsworth, Texas 77483

Owner:

Houston Lighting and 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

Commercial

Operation: August 25, 1988

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# 1RE02 INSERVICE INSPECTION SUMMARY REPORT FOR WELDS AND COMPONENT SUPPORTS

### OF THE

## SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

## UNIT NO. 1

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### 1.0 IRE02 SUMMARY REPORT

### 1.1 Introduction

This Summary Report describes Houston Lighting & Power Company's (HL&P) inservice inspection (ISI) of selected Class I, 2, and 3 components of the South Texas Project Electric Generating Station, Unit I (STPEGS-I) which was performed from March 29 to May 29, 1990 in conjunction with the second refueling outage (1RE02). The ISI summarized herein constitutes the second ISI performed during the first inspection period of the first inspection interval of STPEGS-I. The STPEGS-I ISI program is scheduled in accordance with Program B of the American Society of Mechanical Engineers (ASME) Section XI Code, "Inservice Inspection of Nuclear Power Plant Components". The first ten year inspection interval of STPEGS-1 extends to August 25, 1998. The first inspection period, which is of three years duration beginning with commercial operation, extends to August 25, 1991. The ISI examinations performed up through 1RE02 partially satisfy the ASME Section XI Code completion requirements for the first inspection period.

The STPEGS-I ISI program for the first inspection interval is described in the Ten Year ISI Plan previously filed with the Nuclear Regulatory Commission (NRC) and the State of Texas. The STPEGS-I ISI program was developed and is being implemented in accordance with 10CFR50.55a, the 1983 Edition of Section XI Code with the Summer 1983 Addenda, and other regulatory documents and Section XI Code Cases as specified in the Ten Year ISI Plan. This Summary Report satisfies the reporting requirements of IWA-6000 of the Section XI Code for welds and component supports.

### 1.2 Scope of Summary Report

This Summary Report describes the ISi examinations performed during 1RE02 on welds (Section 2) and component supports (Section 3). Each of these sections describes the scope of examinations performed; describes the personnel, procedures, and equipment utilized for the examinations; provides a summary of the examinations, examination results, and corrective actions; and includes copies of the examination certification (NIS-1) forms.

The ISI performed on Class 1 and 2 welds and components (e.g., bolting) within the Welds Program are described in Section 2 of this Summary Report. These examinations were performed in accordance with Subsections IWB and IWC of Section XI and other bases as specified in the Ten Year ISI Plan. The ISI performed on Class 1, 2, and 3 component supports and Class 3 integral attachments are described in Section 3. These examinations were performed in accordance with Subsection IWF (Class 1, 2, and 3 supports) and Subsection IWD (Class 3 integral attachments) of Section XI and other bases as specified in the Ten Year ISI Plan.

### 2.0 WELD EXAMINATIONS

### 2.1 Introduction

ISI of Class 1 and 2 welds and components within the Welds Examination Program was performed between March 29 and May 5, 1990. These examinations constitute the second ISI of the first inspection interval for the Welds Examination Program.

This section of the Summary Report documents the examinations performed by Southwest Research Institute (SwRI) and HL&P Quality Control (QC) nondestructive examination (NDE) personnel in accordance with the following documents:

- (1) "First 10-Year Long-Term Inservice Examination Plan for the South Texas Project Electric Generating Station, Unit 1" (LTP),
- (2) "Examination Plan for the 1990 1RE02 Inservice Inspection at the South Texas Project Electric Generating Station, Unit 1" including changes made during the outage (Outage Plan).

The Long-Term Plan (LTP) provides a detailed description of the rules for exemption, selection, allocation, and scheduling of Class 1 and 2 welds and examination areas for ISI. The 1990 Examination Plan is an individual Outage Plan for implementing ISI weld examinations as scheduled in the LTP. The Outage Plan contains the applicable operating procedures (OP) and nondestructive testing (NDT) procedures used for the examinations.

### 2.2 Scope of Examinations

NDE was performed on a total of exventy-seven (77) selected Class 1 and Class 2 components and examination areas as contained in the Outage Plan. Selection of these components and examination areas was based on the LTP allocation and scheduling requirements for the second refueling outage. In addition, some selected welds and/or examination areas were either replaced with alternate selections or deferred to a later outage due to component support interference or inaccessibility. These deviations from the LTP were documented as Examination Plan Changes to the Outage Plan.

These examinations constitute approximately ten (10) percent of the total number of components and examination areas required to be examined during the first inspand on interval. When combined with the examinations performed during the first refunding outage (1RE01), approximately twenty (20) percent of the total number of components and examination areas required to be examined during the first inspection interval have been examined.

### Class 1

A total of forty-one (41) examinations were performed on the following Class 1 components and examination areas:

<u>Vessels</u>
Reactor Pressure Vessel (Bolting)
Pressurizer
Steam Generators (Primary Side)

Piping
Reactor Coolant System
Chemical and Volume Control System
Residual Heat Removal System
Safety Injection System

### Class 2

A total of thirty-six (36) examinations were performed on the following Class 2 components and examination areas:

Piping
Containment Spray System
Main Steam System
Safety Injection System

<u>Pumps</u>
High Head Safety Injection Pump 1A
Low Head Safety Injection Pump 1A

A complete list of the components and examination areas is contained in Appendix 2-A. Class 1 and Class 2 weld identification figures for the above components and examination areas are contained in the LTP.

- 2.3 Personnel, Procedures, and Equipment
- 2.3.1 Personnel Qualifications

The examination personnel have been trained and qualified in accordance with Section XI. In addition, Level II examiners performing ultrasonic examinations on austenitic piping welds were qualified by Electric Power Research Institute in detection of intergranular stress corrosion cracking. A list of all personnel who performed examinations during

### 1RE02 is contained in Appendix 2-B

### 2.3.2 Examination Procedures

NDE activities were performed using visual (VT), liquid penetrant (PT), magnetic particle (MT), and ultrasonic (UT) techniques. SwRI personnel performed all examinations (UT, MT, PT, and VT) on the reactor pressure vessel (RPV) bolting and all other UT examinations in accordance with SwRI NDT procedures approved by HL&P. HL&P QC NDE personnel performed all MT, PT, and VT examinations (excluding those required for the RPV bolting) in accordance with HL&P QC NDT procedures.

The NDT procedures were written to conform to the requirements of the applicable sections of the ASME Code. Any deviations from ASME Code requirements are noted within the procedure. Some of the SwRI procedures were amended for specific examination purposes with deviations. All NDT procedures and deviations were submitted to and approved by the Authorized Nuclear Inservice Inspector (ANII). A list of the applicable NDT procedures is provided in Appendix 2-C.

SwRI OP's were utilized to provide guidelines and controls for performance of on site activities. This included procedures for weld joint indentification marking, indication recording, records control, data comparison, and resolution of indications. A list of the applicable OP's is provided in Appendix 2-C.

### 2.3.3 Equipment

Various equipment was used during the ISI to perform the examinations of the selected component welds and examination areas. Major equipment consisted of the following:

Sonic FTS Mark I ultrasonic instruments
Ultrasonic transducers
AC electromagnetic yokes
MT calibration block
Pyrometers
Black light meters
Pressure gauges

A list of all major equipment used during the 1RE02 ISI is contained in Appendix 2-B.

### 2.3.4 Materials

NDE materials utilized during 1RE02 weld examinations included penetrant and magnetic particle materials, ultrasonic couplant, and marking pencils. All materials contacting an austenitic examination surface were tested and certified to be within acceptable sulfur and halogen limits specified in the STPEGS Expendable Material Control Program. A list of these material and traceability numbers is included in Appendix 2-B.

### 2.3.5 Calibration Blocks

Pipe, vessel, and bolting calibration blocks were utilized to calibrate the UT instruments prior to examination of the selected welds. Applicable calibration blocks are noted in the Examination Summary Tables (Appendix 2-A). Drawings for all calibration blocks are included in the LTP.

### 2.4 Summary of Examinations

#### 2.4.1 Examination Methods

The following examination methods were conducted in accordance with HL&P approved SwRI NDT procedures and/or HL&P QC NDT procedures:

### VT Examinations

VT-1 examinations were performed on RPV closure washers, Steam Generator Manway Bolting (Primary Side), and Class 1 flange bolting.

### PT Examinations

PT examinations were performed on RPV closure studs, Class 1 and 2 piping welds, and Class 2 pump casing welds.

#### MT Examinations

MT examinations were performed on the RPV closure studs and nuts and Class 2 piping welds.

### **UT** Examinations

UT examinations were performed on Class 1 and 2 components, including RPV closure studs and nuts, vessels, austenitic piping, and ferritic piping. Various techniques were used to perform the UT examinations, depending on classification, material type, and weld thickness.

### 2.4.2 Augmented Examinations

In addition to the ISI requirements of Section XI for Class 1 piping and ASME Code Case N-408 for Class 2 piping, the following augmented ISI program was implemented during this outage:

Augmented ISI - IE Bulletin 79-17

This augmented program is described in the SwRI LTP and the affected examination areas are noted in the "Remarks" column of the Examination Summary Tables.

### 2.4.3 Data Comparison

In accordance with IWB-3121 of Section XI, the examination results were compared with the recorded NDE results of the preservice inspection (PSI). There were no prior inservice examinations on the areas examined during this outage.

### 2.4.4 Additional and Successive Examinations

Additional VT examinations were performed on the bolting of the Steam Generator (SG) primary manways due to indications (evidence of leakage) observed during VT of the primary manway bolting of SG 1A (see Section 2.5 of this report). In accordance with IWB-2430, additional examinations were required for the manway bolting on at least one other SG. However, additional examinations were performed on the primary manway bolting of the remaining SG's rather than only one. Since the first expansion of additional examinations included the remaining SG primary manway bolting, no second expansion was required.

Successive examinations are required if flaw indications are evaluated in accordance with IWB-3122.4. Since the visual indications on the SG primary manway bolting are not considered flaws, no successive examinations are required.

No other additional examinations (IWB-2430 or IWC-2430) were required during this outage. No other successive examinations (IWB-2420 or IWC-2420) will be scheduled as a result of examinations performed during this outage.

### 2.5 Examination Results and Corrective Actions

Examination area coverage was provided, to the extent practical, in accordance with the requirements of ASME Section XI and Code Case N-408. In those cases where physical conditions of the component restricted examination of the required area, a calculation was

performed to estimate the amount of coverage achieved. Appendix 2-D, ISI Examination Limitations, contains a detailed account of all examination limitations (UT, PT, and MT) encountered during 1RE02 weld examinations.

All UT indications determined to be recordable, regardless of signal amplitude, were investigated by SwRI to determine the nature of the reflector.

No reportable indications were detected by surface (PT and MT) examinations.

VT examination of SG 1A primary manway bolting revealed evidence of leakage (presence of boron crystals on portions of the mating surface and on some bolts) at both the inlet and outlet manways which was reported a Request for Action (RFA) No. 90-0099. Additional examinations were scheduled on the bolting of the remaining SG primary manways (1B, 1C, and 1D). Evidence of leakage (boron crystals) was observed on the inlet manway of SG 1B and outlet manway of SG 1C and reported on RFA No. 90-1109 as potentially nonconforming conditions. Evaluation of the findings documented in these RFA's by the Design Engineering Department concluded that the conditions were acceptable and no further action was taken.

During preparatory visual examination of RPV Studs prior to surface examinations, minor pitting was observed in the threaded area of RPV Stud 1A. The pitting was documented on a rollout drawing of the threads and reported on RFA No. 90-1126. Evaluation of the findings documented in this RFA by the Design Engineering Department concluded that this condition was acceptable and no further action was taken. No pitting was observed on the other eleven (11) RPV studs that were examined during this outage.

### 2.6 Certification of Inspections

ASME Section XI NIS-1 forms, "Owner's Report for Inservice Inspections", have been prepared to certify the STPEGS-1 weld ISI examinations described in this section of the Summary Report. The STPEGS-1 weld ISI examinations have been certified by our ANII, Factory Mutual Systems, on the NIS-1 forms included in Appendix 2-E.

## APPENDIX 2-A SUMMARY OF EXAMINATIONS

FIRST INTERVAL, FIRST PERIOD, SECOND SUTAGE (1990) CLASS 1 COMPLETED COMPONENTS

REACTOR	PRESSURE	VESSEL
AND DESCRIPTIONS OF THE PARTY O		

		ASME			8		0	
		SEC. NI						
SUPPLARY	EXAMINATION AREA	CATGY	EXAM			0	2,450	REMARKS
MUMBER	IDENTIFICATION	ITEM NO	DETHOD	PROCEDURE			100	**CALIBRATION BLOCK**
	••••••	•••••		••••••				•••••
	CLOSURE HEAD BOLTING (FLE DO A	- MPV-2. 3	2					
005300	CLOSURE BUTS	8-6-1	MT	300-2/43	N			EXAMINED MUT NOS. 14, 64, 74, 104, 134,
		96.10	UTO	600-19/35	×			164, 194, 224, 254, 264, 314, AND 344.
			U143					
005400	CLOSURE STUPE	0-6-1	PT	200-5/3	X	*		
		86.30	MI	300-2/43	1141 50			,, son, son, son, sin, mo son.
			U145	800-22/3	K			ALL TO LOUISE DECOMENIS LILLING IN INC
			UT60		11/1/55			The state of the state of the state
			U188	800-109/3	*			DISPOSITION OF STUD 1A WAS USE-AS-IS. LIMITED UT OF THE LUGS DUE TO STUD CONFIGURATION. **CS-45A/CS-658**
005600	CLOSURE HEAD WASHERS	0-6-1	VT-1	900-7/15	×			EXAMINED WASHER NOS 1A, 6A, 7A, 10A,
		96.50						13A, 16A 19A, 22A, 25A, 28A, 31A, AND 36A.

DATE:	06/27	7/90
	M.	

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

PAGE:

### INSERVICE INSPECTION SUPPLARY

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

PRESSURIZER

THERESE							0	
		ASME				6	TO S	
		SEC. XI			11 (2)	F731		
						E		
	EXAMINATION AREA	CATGY	EXAM			0	E	REMARKS
NUT BER	IDENTIFICATION	ITEM NO	METHOD	PROCEDURE	C			**CALIBRATION BLOCK**
*******	***************************************		••••••	••••••		•	*	••••••
	CIRCUMFERENTIAL WELDS (FIG NO.	A-PR7-1)						
010100	PRZ-1-C1	1-1	UTOW	600-49/3	×			LIMITED UT FROM THE SHELL SIDE DUE TO
	UPPER HEAD TO SHELL A	82.11	UT45	600-15/73	×			PROXIMITY OF PERMANENT PIPE SUPPORTS AND
			UT451		×			3/4" INSTRUMENTATION LINES.
			U160			×		
			UT601		×		•	**CSCL -36**
	LONGITUDINAL WELDS (FIG NO A-P	82-1)						
010300	PRZ-1-L1	••	UTOW	600-49/3	×			EXAMINED 1 FT. OF WELD INTERSECTING WITH
	SHELL A LONGITUDINAL WELD	82.12	UT45	600-15/73	R.63.			PRZ-1-C1.
	The state of the s		UT451					
			01401		- 44	100	1.5	

x . . \*\*CSCL-36\*\*

U160 UT601

DATE:	06/27	7/90
-	DN:	

## SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 9 INSERVICE INSPECTION SURGRAPY

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FIRST INTERVAL, FIRST PERIOD, SECOND GUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

The second second	CONTRACTOR ASSESSMENT	1000		
ETEAN	GENERATOR	14	/ DO IMARY	SINE!
THE RESERVE	DENERMINA	- 100	L P IC I MARK I	21067

SECTION

STEAM G	ENERATOR 14 (PRIMARY SIDE)							
					N		0	
		SEC. XI				6	usa.	
CIRMARY	EXAMINATION AREA	CATGY	EKAM		n igu			REMARKS
	IDENTIFICATION	ITEM NO	METHOD	PROCEDURE			6	
	······································		METHOD 	PROCEDURE				P°CALIBRATION BLOCK®
	HEAD WELDS (FIG NO A-SG-1)							
015000	8C-1A-5R1	0-0	UTOU	600-49/3	×			NO UT FROM THE SUPPORT RING SIDE DUE TO
	CHANNEL HEAD CAP TO SUPPORT	82.31	UT 65	600-15/73	R			
	RING		U1451		×			
			UTSO		x			
			U1601		×			WELDS.
D15100	SG-1A-SR2	9-8	UTOU	600-49/3	×			MO UT FROM THE SUPPORT RING SIDE DUE TO
	SUPPORT RING TO TUBE PLATE	82.40	UT45	600-15/73		×		
			UT45T		×			UT45 AND UT60 FROM THE TUBE PLATE SIDE
			U160			M		
			U1601		×	•		**CSCL -36**
	HOZZLE TO VESSEL LOWER HEAD LA	LDS (FIG	NO 4-5G-1)					
015200	SG-1A-IN	B-D	UTOW	600-49/3	×			LIMITED UTON, UT45, AND UT60 FROM THE
	INLET MOZZLE TO CHANNEL HEAD	83.130	UT45	600-15/73	×			
	CAP		UT45T		×			
			U160		×			
			UTEGT		×			• • • CSCL - 36 • •
D15300	6G-1A-ON	B-D	UT0W	600-69/3				
	CHANNEL HEAD CAP TO OUTLET	83.130	UT65	600-15/73				
	NOZ74E	05.150	U1451	000-13/13				many with our in chantilli of BEED but
			UT60		3 33			THE TRUST COM CANON THE INCHES HIN I CH
			UT601					
	MOZZLE INSIDE RADIUS SECTION	CFIG NO A	1-60-1)					
015400	SG-1A-IN-IR	B-D	UT28	600-11/46				
	INLET NOZZLE INSIDE RADIUS	83.140			SUN			

\*\*CSCL-41\*\*

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

INSERVICE INSPECTION SUPPLARY

FIRST INTERVAL, FIRST PERIOD STOOM OUT GE (1990) CLASS 1 COMPLETED COMPONENTS

STEAM GENERATOR 14 (PRIMARY SIDE)

ASE . . .

SEC. XI . . .

SUMMARY EXAMINATION AREA CATGY SKAN . . . REMARKS

NUMBER IDENTIFICATION ITEM NO METHOD PROCEDURE C H R \*\*CALIBRATION BLOCK\*\*

MOZZLE INSIDE RADIUS SECTION (FIG NO A-SG-1)

015500 SG-14-08-18 600-11/46 8-D 851U x . .

QUILET MOZZLE INSIDE RADIUS 83.140

SECTION.

\*\*CSCL-41\*\*

MANHAY BOLTING (FIG NO A-SG-1)

6-5800 BG-14-148 0-G-2 VT-1 NDEP 9.3 RO . . X EXAMINED NOS. 1 - 16. EVIDENCE OF INLET MANUAY BOLTING 67.30 COCLANT LEAKAGE WAS DETECTED. RFA NO. 900099 WAS ISSUED FOR THIS INDICATION.

THIS CONDITION WAS EVALUATED BY ENGINEERING AND ACCEPTED AS-IS.

PAGE:

015900 SG-1A-DMB 0-0-2 VT-1 MDEP 9.3 RO . . X EXAMINED NOS. 1 . 16. EVIDENCE OF OUTLET MAP AY BOLTING 87.30 COOLANT LEAKAGE WAS DETECTED. REA NO.

> 900099 WAS ISSUED FOR THIS INDICATION. THIS CONDITION WAS EVALUATED BY ENGINEERING AND ACCEPTED AS-15.

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUPPLARY FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1941) CLASS 1 COMPLETED COMPONENTS

PAGE:

STEAM	GENERA	TOR	18	(PR	HARY	SIDE	
-------	--------	-----	----	-----	------	------	--

SLAMARY	EXAMINATION AREA IDENTIFICATION MANWAY BOLTING (FIG NO A-SG-2)	ASME SEC. XI CATGY ITEM NO	EXAM METHOD	PROCEDURE			REMARKS O-CALIBRATION BLOCK++
016800	SG-18-IMB INLET MANHAY BOLTING	8-6-2 87.30	VT-1	MDEP 9.3 77	•	*	EXAMINED NOS. 1 - 16. EVIDENCE OF COOLANT LEAKAGE WAS DETECTED. RFA NO. 901109 WAS ISSUED FOR THIS INDICATION. THIS CONDITION WAS EVALUATED BY ENGINEERING AND ACCEPTED AS-15.
D16900	SG-18-CHE CUTLET MANUAY BOLTING	8-G-2 87.30	VI-1	NDEP 9.3 RO	*		EXAMINED NOS. 1 - 16.

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

INSERVICE INSPECTION SUPPLARY

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

STEAM GENERATOR 10 (PRIMARY SIDE)

ASME O G T SEC. XI R E H

SUMMARY EXAMINATION AREA CATGY EXAM E O E REMARKS

NUMBER IDENTIFICATION ITEM NO METHOD PROCEDURE C M R \*\*CALIBRATION BLOCK\*\*

MANHAY BOLTING (FIG NO A-SG-1)

D17800 8G-1C-1MB 8-G-2 VT-1 MDEP 9.3 RD X - - EXAMINED MOS. 1 - 16.

INLET MANNAY BOLTING 87.30

D17900 BG-1C-OMB B-G-2 VT-1 NDEP 9.3 RO - - X EXAMINED NOS. 1 - 16. EVIDENCE OF COULANT LEAKAGE WAS DETECTED. RFA NO.

901109 WAS ISSUED FOR THIS INDICATION.
THIS CONDITION WAS EVALUATED BY
ENGINEERING AND ACCEPTED AS-IS.

PAGE:

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUMMARY

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FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

STEAM GENERATOR 10 (PRIMARY SIDE)

SUMMARY EXAMINATION AREA

ASME OGT SEC. KI REH

DIGY EXAM E O E REMARKS

NUMBER IDENTIFICATION ITEM NO METHOD PROCEDURE C M R \*\*CALIBRATION BLOCK\*\*

MANUAY BOLTING (FIG NO A-SG-2)

018300 EG-10-IMB 8-G-2 VT-1 NDEP 9.3 RO K - - EXAMINED NOS. 1 - 16.

INLET MANHAY BOLTING 87.30

D18900 EG-10-CMB B-G-2 VT-1 NDEP 9.3 RO X - - EXAMINED NOS. 1 - 16.

OUTLET MANWAY BOLTING 87.30

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 SWERVICE INSPECTION SUMMARY

PAGE:

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990) CLASS 1 COMPLETED COMPONENTS

	 -		 
-	200	LANT	
ALC: UKA			

ASME   SIC. N.	REACTOR	CO VANT SYSTEM							
SEC. XI								- 67	
TEMPORAL PROMERTION   TEMPORAL			CONTRACT COLUMN						
102000   2	-	EVANINATION ACT		EVAN				:	DEMAPLE
12-RC-1112-BB1 (FIG NO A-RC-B)  102040 2				The later of the l	PROCEDURE		ĭ		
102040 2 PIPE TO BLBOW  89.11 UT45, B0-114/4 DEV 1,2, & 4				**********					
PIPE TO ELBOW  80.11  UT45  DEV 1,2, 8 4		12-RC-1112-BB1 (FIG NO A-RC-8)							
102090 7 ELBOU TO PIPE 89.11  102130 11 PIPE TO VALVE 89.11  102250 3 ELBOU TO PIPE 89.11  10255 3 ELBOU TO PIPE 89.11  10256 3 ELBOU TO PIPE 89.11  10257 4	102040	2	0-1	PT	MDEP 6.2 R2	×			
102090 7 ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45 B00-114/4 - x - ELBOU TO PIPE 80.11 UT45T DEV 1,2, & 4 x ELBOU TO PIPE 80.11 UT45T DEV 1		PIPE TO ELBOW	89.11	UT45	800-114/4		×		
102090 7 ELBOU TO PIPE  8-J PT NDEP 6.2 R2 X PSS-21==  102130 11 PIPE TO VALVE  8-J PT NDEP 6.2 R2 X PSS-21==  10230 3 ELBOU TO PIPE  8-J PT NDEP 6.2 R2 X PSS-21==  10250 3 ELBOU TO PIPE  8-J PT NDEP 6.2 R2 X PSS-21==  10250 13 PIPE TO BRANCH CONNECTION  8-J PT NDEP 6.2 R2 X PSS-21==  102350 13 PIPE TO BRANCH CONNECTION  8-J PT NDEP 6.2 R2 X PSS-21==  102350 13 PIPE TO BRANCH CONNECTION  8-J PT NDEP 6.2 R2 X PSS-21==  102350 13 PIPE TO BRANCH CONNECTION  8-J PT NDEP 6.2 R2 X PSS-21==  **SS-21==  **SS-2				U145	DEV 1,2, & 4	×			
ELBOU TO PIPE  80.11  UT45T  DEV 1,2, & 4									**\$5.21**
ELBOU TO PIPE  80.11  UT45T  DEV 1,2, & 4	102000				When 4 2 82				
102130 11	102070		70.00	THE RESERVE					
102130 11									
PIPE TO VALVE  B9.11 UT45 B00-114/4 - X -  12-RC-1125-BB1 (FIG NO A-RC-9)  102250 3  ELBOY TO PIPE  B9.11 UT45 B00-114/4 - X -  UT451 DEV 1, 2, & 4 X  **SS-21***  **SS-21***  102350 13  PIPE TO BRANCH CONNECTION  B9.11 UT45 B00-114/4 - X -  UT451 DEV 1, 2, & 4 X  **SS-21***									**55-21**
PIPE TO VALVE  B9.11 UT45 B00-114/4 - X -  12-RC-1125-BB1 (FIG NO A-RC-9)  102250 3  ELBOY TO PIPE  B9.11 UT45 B00-114/4 - X -  UT451 DEV 1, 2, & 4 X  **SS-21***  **SS-21***  102350 13  PIPE TO BRANCH CONNECTION  B9.11 UT45 B00-114/4 - X -  UT451 DEV 1, 2, & 4 X  **SS-21***									
10250 3 ELBOW TO PIPE  8-J PT NDEP 6.2 R2 NO. 114/4 NO. 1457 NDEP 6.2 R2 NO. 1447 NDEP 6.2 R2	102130					×	*		
102250 3 ELBOW TO PIPE  B-J PT NDEP 6.2 R2 X B9.11 UT45 B00-114/4 - X - UT457 DEV 1,2, & 4 X PIPE TD BRANCH CONNECTION  B9.11 UT45 B00-114/4 - X - UT457 DEV 1,2, & 4 X PIPE TD BRANCH CONNECTION  B9.11 UT45 B00-114/4 - X - PESS-21**  B-RC-1114-RB1 (FIG NO A-RC-12)  1031YU 1 VALVE TO PIPE  B9.11 UT45 B00-114/4 - X - VALVE CONFIGURATION.		PIPE TO VALVE	89.11				700		
10250 3 B-J PT NDEP 6.2 R2 X				U1451	DEV 1,2, & 4	×		*	
102250 3 ELBOW TO PIPE  B-J PT NDEP 6.2 R2 X B9.11 UT45 800-114/4 - X - UT451 DEV 1,2, 8 4 X PIPE TO BRANCH CONNECTION  B9.11 UT45 800-114/4 - X - UT451 DEV 1,2, 8 4 X  B-RC-1114-B81 (FIG NO A-RC-12)  103190 1 VALVE TO PIPE  B9.11 UT45 800-114/4 - X - VALVE CONFIGURATION.									**82-51**
### BP.11 UT45 ### BO.114/4 - X - ### BP.11 UT45 #### BP.11 UT45 ##### BP.11 UT45 ####################################		12-RC-1125-BB1 (FIG NO A-RC-9)							
### BP.11 UT45 ### BO.114/4 - X - ### BP.11 UT45 #### BP.11 UT45 ##### BP.11 UT45 ####################################									
U 451 DEV 1,2, & 4 X	102250								
102350 13		ELBOW TO PIPE	89.11				100		
102350 13 PIPE TO BRANCH CONNECTION B9.11 UT45 B00-114/4 - x - UT45T DEV 1,2, & 4 X  B-RC-1114-B81 (FIG NO A-RC-12)  103190 1 VALVE TO PIPE  B9.11 UT45 B00-114/4 - x - VALVE CONFIGURATION.				U.451	DEV 1,2, & 4	×	*		
### PIPE TO BRANCH CONNECTION #9.11 UT45 ### B00-114/4 - X - UT45T DEV 1,2, & 4 X *******************************									83-51.
### DEV 1,2, & 4   X ***  ### B-RC-1114-BB1 (FIG NO A-RC:12)  #### B-J PT NDEP 6.2 R2   X MO UT FROM THE VALVE SIDE DUE TO THE VALVE TO PIPE  ### B9.11 UT45  ### B00-114/4 - X - VALVE CONFIGURATION.  ###################################	102350	13	8-3	PT	NDEP 6.2 R2	×			
8-RC-1114-BB1 (FIG NO A-RC-12)  103190 1		PIPE TO BRANCH CONNECTION	89.11	U145	800-114/4		×		
0-RC-1114-BB1 (FIG NO A-RC-12)  103190 1				UT451	DEV 1,2, & 4	×			
103190 1 8-J PT NDEP 6.2 R2 X MO UT FROM THE VALVE SIDE DUE TO THE VALVE TO PIPE 89.11 UT45 800-114/4 - X - VALVE CONFIGURATION.  UT451 DEV 1,2, & 4 X									**\$2-51**
VALVE TO PIPE B9.11 UT45 B00-114/4 - X - VALVE CONFIGURATION. UT451 DEV 1,2, & 4 X		8-RC-1114-BB1 (FIG NO A-RC-12)							
VALVE TO PIPE B9.11 UT45 B00-114/4 - X - VALVE CONFIGURATION. UT451 DEV 1,2, & 4 X	103190			PT	MDE2 6.2 82				NO 1/7 EPON THE VALVE SIDE NIE TO THE
UT451 DEV 1,2, & 4 X									
									THE SOME POWER TOWN
				UT60	800-132/0	200			
U1601 DEV 1 X **SS-11**									**\$5-11**

152380 8

152420 12

PIPE TO ELSON

PIPE TO ELBON

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

PAGE:

INSERVICE INSPECTION SUMMARY

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

NDEP 6.2 R2

MDEP 6.2 R2

CHEMICAL AND VOLUME CONTROL SYSTEM	CHEMICAL	AND	VOLUME	CONTROL	SYSTER
------------------------------------	----------	-----	--------	---------	--------

		ASME					0	
		SEC. XI						
SUMMARY	EXAMINATION AREA	CATGY	EXAM			0		REMARKS
NUMBER	IDENTIFICATION	ITEM NO	METHOD	PROCEDURE	c			"CALIBRATION BLOCK"
••••••	***************************************	•••••	**********	•••••				***************************************
	6-CV-1001-881 (FIG NO A-CV-1)							
150000		0-1	PT	MDEP 6.2 R2	×			
	VALVE TO PIPE	89.11	UT45	800-132/0	×			
			UT45T	DEV 1	×			
								81-6
	2-CV-1124-881 (FIG NO A-CV-5)							
152300		0.1	PT	NDEP 6.2 R2	×			
	PIPE TO VALVE	89.21						

### 2(1.5)-CV-1122-BB1 (FIG NO A-CV-4)

154880	2	9-3	PT	NDEP 6.2 R2	x
	BENT PIPE TO FLANGE (PUMP)	89.21			

0-3

89.21

89.21

PT

154885	218	8-0-5	V1-1	NDEP 9.3 RO	x
	FLANGE BOLTING	87.50			

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUMMARY

PAGE:

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

CLASS 1 COMPLETED COMPONENTS

RESIDUAL	MEAT	REMOVAL	SYSTEM

							0	
		ASME			0		1	
		SEC. XI						
SUPPLARY	EXAMINATION AREA	CATGY	EXAM			0		REMARKS
NUMBER	IDENTIFICATION	ITEM NO	METHOD	PROCEDURE	C			**CALIBRATION BLOCK**
•••••	•••••	•••••	•••••	•••••		•	•	

### 12-RH-1301-881 (FIG NO A-RH-3)

201040	2	9-3	PT	MDEP 6.2 R2	×		
	PIPE TO ELBOY	89.11	U145	800-114/4		×	
			UT451	DEV 1,2, & 4	×		
							**\$\$-21**
201120		0.,	PT	NDEP 6.2 R2	×		
	PIPE TO ELBOW	89.11	UT45	800-114/4			
			UT45T	DEV 1,2, & 4	×		
							**85-21**
201180	•	•.,	PT	NDEP 6.2 R2	×		
	ELBOW TO PIPE	89.11	U:45	800-114/4		x	
			U1451	DEV 1,2, & 4	×		

\*\*\$5-21\*\*

### 10-RH-1308-BB1 (FIG NO A-RH-5)

202180	REDUCING TEE TO PIPE	8-J 89.11	PT UT45 UT45T	NDEP 6.2 R2 800-114/4 DEV 1,2, & 4	x	**\$\$-58**
202240	6 PIPE TO ELBOW	8-J 89.11	PT UT45 UT451	NDEP 6.2 R2 800-114/4 DEV 1.2. 8.4	*	

\*\*\$5.58\*\*

DATE:	06/27/90
BEVIS	ON: 0

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUPMARY

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FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990) CLASS 1 COMPLETED COMPONENTS

And the second second	The same of the same of	Acres .	All the Real Property	- million
CAFETY	INJECT	100	EVET	-
			3131	

SAFETY	INJECTION SYSTEM							
		ASME					0	
		SEC. KI						
SUPPLAR	EXAMINATION AREA	CATGY	EXM			- 5	ï	REMARKS
	IDENTIFICATION	ITEM NO	The state of the s	PROCEDURE	è			**CALIBRATION BLOCK**
•••••					•	٠	٠	
	12-51-1125-881 (FIG NO A-51-1)	1						
230060		0.1	PT	MDEP 6.2 R2	×			
	PIPE TO VALVE	89.11	UT45	800-114/4		×		
			U1451	DEV 1,2, \$ 4	×	٠		
								**\$8-21**
	0-51-1327-881 (FIG NO A-51-5)							
231480	,	8-3	PT	NDEP 6.2 R2	×			
	PIPE TO ELBOW	89.11	U145	800-114/4		*		
			UT451	DEV 1,2, & 4	×			
								**55-10**
231520	7	<b>0</b> -J	PT	NDEP 6.2 R2				
	PIPE TO ELBOW	89.11	UT45	800-114/4		×		
			U1451	DEV 1,2, 8 4	×			
								**SS-10**
	6-81-1111-881 (FIG #2 A \$1-3)							
232060	•	8.1	PT	MDEP 6.2 R2	×			
	VALVE TO PIPE	89.11	U145	800-114/4		×		
			U1451	DEV 1,2, & 4	×			
			U160	800-132/0		×		
				DEV 1				**\$\$-8**
	6-51-1327-881 (FIG NO A-51-5)							
233100		0.1	PT	NDEP 6.2 R2	X	*		
	PIPE TO ELBOW	89.11	UT45	800-114/4		X		
			U1451	DEV 1,2, & 4	X	•		
								**\$\$-9**

## SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUBGRARY

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FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)
CLASS 2 COMPLETED COMPONENTS

CONTAINMENT SPRAY SYS	STEM	
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CONTAIN	MENT SPRAY SYSTEM							
					N		0	
		ASME				6		
		BEC. XI			1 3			
	EXAMINATION AREA	CATCY	KAN		- 3	0	E	REMARKS
NUMBER	IDENTIFICATION	ITEM NO	METHOD	PROCEDURE	c	M	a	**CALIBRATION BLOCK**
	***************************************	******	*******			•	•	***************************************
	12-CS-1101-US2 (FIG NO 8-CS-1)							
400040	210	C-F-1	P.	SDEP 6.2 R2	H			EXAMINED & ST AT THE INTERSECTING CIAC.
	LONG!TLD INAL WELD	C5.12	4.45	800-36/41	×			WELD.
			U1451		×			
								0*88-1201
100010								
400060	2	C-F-1	PT	NDEP 6.2 R2		*		
	PIPE TO ELBOW	C5.11	U145	800-36/41				
			U1451		X		*	
								**\$\$.12**
400080	2LD	C-F-1	PT	MDEP 6.2 R2				EXAMINED 2.51 AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.12	U145	800-36/41				The second secon
			U1451					
								*****
	8-CS-1102-PB2 (FIG NO 8-CS-5)							
412390	,,	C-F-1	PT	NDEP 6.2 82				
	PIPE TO FLANGE		UT45	800-36/41	-			AUGMENTED ISI - IES 79-17.
			UT451	000-30/11				
					٠			**\$\$-86**
	6-CS-1103-PB2 (FIG NO B-CS-1)							
422260		C-F-1	PT	MDEP 6.2 R2	K			AUGMENTED ISI - 1EB 79-17. EXAMINED
	LONGITUDINAL WELD	**	U145	800-36/41				
			U1451					The second control of the sector.
								o-55-85
422270	12	C-F-1	PT	MDEP 6.2 R2				
	PIPE TO VALVE		UT45	800-36/41	11/1/25		*	AUGMENTED ISI - IES 79-17.
			UT45T	800-36/41			:	
			01491		×			2011 1111
								°°\$\$-85**

## SOUTH THAS PROJECT ELECTRIC GENERATING STATION UNIT 1

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FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)
CLASS 2 COMPLETED COMPONENTS

MAI	N	2	15	M	SY	STEE	i

							0	
		a sme					770	
		SEC. XI			0		N	
SLOSSARY	ELAMINATION AREA	CATEY	ERAM			0		REGARKS
GLOUBER	IDEMTIFICATION	ITEM NO	METHOD	PROCEDURE	C	M	9	**CALIBRATION BLOCK**
*******	••••••	******		•••••			٠	•••••
	30 4001-GAZ (FIG NO B-ME-1	22						
551480	21111	C-F-2	WT	MDEP 7.1 80				EXAMINED 2.57 AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.52	U145	600-61/19				
			U1451	DEV 2				
								0008-500
551500	21110	C-1-5	MT	MDEP 1 BD				ENAMINED 2 ST AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.52	UT45	600-41,19				
		*****	U1451	DEV 2				
			0.431					**************************************
551520								
**1320	ELBON TO PIPE	C-F-2 C5.51	MT	GDEP 7.1 RD				
	Trace to vire	65.51	UT45	600-41/19	1,32			
			U1451	DEV 2	×		*	
								00C8-200
551540	SILD	C-F-2	MT	MDEP 7.1 RD	×			EXAMINED 2.51 AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.52	U145	600-41/19	×			SELD.
			UT451	DEV 2	X			
								**C\$-5**
551620	23.0	C-F-2	MI	MDEP 7.1 RD				
	LONGITUDINAL WELD	C5.52	UT45	600-41/19			i	EXAMINED 2.51 AT THE INTERSECTING CIRC.
			U1451	DEV Z				acro.
								0°C\$.500
551640	23	C-F-2	<b>MI</b>					
	PIPE TO PEHETRATION	C5.51	UT45	MDEP 7.1 RO 600-41/19	10,000			
			UT45T	DEA 5				
			Ulasi	ORV 6	*		•	*°C\$-5**
	30-MS-1004-GAZ (FIG NO 8-MS-7	دف						
557340	4LU1	C-F-2	нт	MDEP 7.1 RO				EVANIMED 2 EV AV THE
	LONGITUDINAL WELD	C5.52	UT45	600-41/19				EXAMINED 2.5T AT THE INTERSECTING CIRC.
				DEV 2				
				2-20				**C\$.500

DATE:	08/27/90	
BEVIE	0	

## SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUMMARY FIRST INTERVAL, FIRST PERIOD, SECOND GUTAGE (1990) CLASS 2 COMPLETED COMPONENTS

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CLASS 2 COMPLETI

MAIN ST	CAR SYSTER							
							0	
		ASME			0	6	*	
		SEC. XI					01	
SUBSIARY	EXAMINATION AREA	CATGY	EXAM			0		REMARKS
MUMBER	IDENTIFICATION	ITEM NO	ME I HOED	PROCEDURE	C	-	0	**CALIBRATICA BLOCK**
••••••	•••••••••	•••••		••••••			•	••••••
	30-95-1004-GAZ (FIG NO 8-95-7.	9)						
557360	41.00	C-1-5	MT	MDEP 7.1 80	×			EXAMINED 2.5T AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	CS.52	U145	600-41/19 DEV 2	×	•	٠	WELD.
								••C8-9••
957380		c-f-2	at	MDEP 7.1 80				
	ELBON TO PIPE	C5.51	U145	600-41/19	- **			
			0.45	DEA S	•	ı.		
								*°C\$-\$°°
557400	410	C-1-5	MT	MDEP 7.1 RO				SUMMINES S 55 44 44 44 44 44 44 44 44 44 44 44 44
207400	LONGITUDINAL WELD	C5.52	UT45					EXAMINED 2.5T AT THE INTERSECTING CIRC.
	TOMOTIONIANE BEED	65.52	0145	600-41/19 DEV 2	×			WELD.

00CS-500

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUMMARY FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)

PAGE:

CLASS 2 COMPLETED COMPONENTS

SAFETY	INJECT 10	SYSTEM
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BATELY	INVECTION STATES							
					Ø		0	
		ASME						
		SEC. XI						
	EXAMINATION AREA	CATGY	CHAM			0	2	REMARKS
SUPPER	IDENTIFICATION	ITEM NO	MET NOD	PROCEDURE	E		R	**CALIBRATION BLOCK**
*******	***************************************		**********	***************************************			•	***************************************
	24-\$1-1101-UB2 (FIG NO 8-51-1.	21						
700450		C-C	09	MDEP 6.2 02	×			SPLS WAS REMOVED DURING PSI.
	PIPE LUGS	C3.80						
	16-\$1-1101-UB2 (FIG NO 8-\$1-3)							
702960	110	C-F-1	PT	NDEP 6.2 82				
	LONGITUDINAL MELD	C5.12	UTAS	800-36/41				EXAMINED 2.5T AT THE INTERSECTING CIRC.
	COMOTION IN C. BELD	C3.12	U1451	000-30/41		•		WELD.
			01431		A	٠	3.11	
								0-88-30-0
703000		C-F-1	PT	MDEP 6.2 R2				
	REDUCER TO PIPE	C5.11	UT45	800-36/41	1100			
			UT451	000-30/41	11.00			
			Ulasi			•		**\$\$.30**
703020	11.0	C-F-1	PS	MDEP 6.2 82	×			EXAMINED 2.5T AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.12	UT45	800-36/41	M			WELD.
			UT451		-			
								**\$\$-30**
703120		C-F-1	PT	WDEP 6.2 R2	×			EXAMINET 2.5T AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.12	UT45	800-36/41	×			WELD.
			UT451		×			
								0088-3000
					14			
703140		C-F-1	PT	MDEP 6.2 R2	×			The same of the same of the circ.
	LONGITUDINAL WELD	C5.12	UT45	800-36/41	X			WELD.
			U1451		×	•		
								**85-30**
202110								
703160		C-F-1	PT	MDEP 6.2 R2	7			
	ELBON TO PIPE	C5.11	UT45	800-36/41				
			UT451		X			

\*\*\$\$-30\*\*

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1 INSERVICE INSPECTION SUMMARY

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FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)
CLASS 2 COMPLETED COMPONENTS

SAFETY INJECTION SYSTE	SAFETY	INJECT	ION	SYSTE
------------------------	--------	--------	-----	-------

SAFETY	INJECTION SYSTEM							
					K		0	
		ASME			C41200	6		
	EXAMINATION AREA	SEC. XI					1	
NUMBER	IDENTIFICATION	CATGY	EXAM			0	:	REMARKS
	IDENTIFICATION	TTEM NO	METHOD	PROCEDURE				**CALIBRATION BLOCK**
	16-51-1101-UB2 (FIG NO 8-51-3)							
703180	3LD	C-F-1	PT	MDEP 6.2 R2	*			EXAMINED 2.5T AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.12	UT45	800-36/41	0.50			ED.
			U.S.					**58-30**
703240		C-F-1	PT	MDEP 6.2 92	100	*		
	VALVE TO PIPE	C5.11	U145	800-36/41				
			U1451		×			
								**65-30**
703260	510	C-F-1	PT	NDEP 6.2 R2				EXAMINED 2.57 AT THE INTERSECTING CIRC.
	LONGITUDINAL WELD	C5.12	U145	800-36/41				WELD.
			UT45T					
								**\$\$-30**
	12-51-1101-UB2 (FIG NO 8-51-3)							
709220		C-F-1	PT	NDEP 6.2 R2				
	BRANCH CONNECTION TO PIPE	C5.11	UT45	800-36/41				
			UT45T					
								**\$\$-13**
709240	116	C-F-1	PT	NDRP 6.2 R2				
	LONGITUDINAL WELD	C5.12	UT45	800-36/41				The state of the s
	TOMOTTON THAT WELD		UT451	800.30/41				WELD.
			0.45					**\$\$-13**
	10-51-1:01-UB2 (FIG NO B-51-3)							
716660				ween 4 5 55				
110000		C-F-1	PT	NDEP 6.2 R2	195			AUGMENTED ISI - IEB 79-17.
	BRANCH CONNECTION TO PIPE	••	UTOL UT45	600-49/3		•		
				800-36/41				
			UT45T		×	•	1	是在1915年中的中国的 <b>国际</b>
								**\$\$-87**

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746200 1

BRANCH CONNECTION TO PIPE

### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

PAGE:

INSERVICE INSPECTION SUBMARY

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)
CLASS 2 COMPLETED COMPONENTS

CARETY		-	
SAFETY	LILLER	LUNI	STATEM

en: b	INVECTION SYSTEM						0	
		ASME			0	6	1	
		SEC. MI			0	10	N	
SUPPLARY	EXAMINATION AREA	CATGY	ERAM		•	0	8	REMARKS
UMBER	IDENTIFICATION	ITEM MO	DET HOD	PROCEDURE	C			OCALIBRATION BLOCKOO
		•••••		•••••	٠	•		
	10-81-9101-UBZ (FIG NO 8-81-3)							
716680	110	C-F-1	PT	MDEP 6.2 82	×			AUGMENTED 181 - 188 PO-17. EXAMINED
	LONGITUDINAL WELD		UTOL	600-49/3	×			2.57 AT THE INTERSECTING CIRC. WELD
			UT45	800-36/41	×			
			UT457		X			
								0055-8700
	2-51-1106-DB2 (FIG NO 8-81-20)							
746010	2	C-F-1	PT	NDEP 6.2 R2	*			
	PIPE TO ELBOW	C5.30						
746120	,							
740120	REDUCER TO PIPE	C-F-1	PT	MDEP 6.2 82		*		
	MEDDEEK TO PIPE	C5.21	U145	600-39/10	×		*	
			U1651	DEV 1	×			
			UT45	800-36/41		*		
			01431		×	*		***************************************
	2-51-1139-DB2 (FIG NO 8-51-21)							

C-F-1

C5.30

PT

MDEP 6.2 R2

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1
INSERVICE INSPECTION SUMMARY

PAGE: 18

FIRST INTERVAL, FIRST PERIOD, SECOND OUTAGE (1990)
CLASS 2 COMPLETED COMPONENTS

HIGH HEAD SAFETY INJECTION PUMPS

ASME O 6 T SEC. KI R R N

SUBMARY EXAMINATION AREA CATGY EXAM E O E REMARKS

MICHBER IDENTIFICATION ITEM NO METHOD PROCEDURE C M R .CALIBRATION BLOCK.

PLEAP 1A (FIG NO 8-HHSIP-1)

751020 SIAPHN-1A-PCM1 C-G PT MDEP 6.2 02 X - .

FLANGE TO UPPER CASE C6.10

751025 SIAPHH-1A-PCW2 C-G PT MDEP 6.2 R2 X - - UPPER CASE TO LOWER CASE C6.10

ø

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1

INSERVICE INSPECTION SUMMARY

FIRST INTERVAL, FIRST PERIOD, SECOND DUTAGE (1990)

CLASS 2 COMPLETED COMPONENTS

LOW HEAD SAFETY INJECTION PUBLIS

ASME 0 G T

SEC. XI A E H

BURBLARY EXAMINATION AREA CATUY EXAM E O E REMARKS

HUMBER IDENTIFICATION ITEM NO METHOD PROCEDURE C M & ... CALIBRATION BLOCKS

PUMP 14 (FIG NO B-LHSIP-1)

PS1325 BIAPLH-1A-PCW2 C-C PT MDEP 6.2 R2 M - - UPPER CASE TO LOWER CASE C6.10

2-26

## APPENDIX 2-B PERSONNEL/EQUIPMENT/MATERIALS

### APPENDIX 2-B

### PERSONNEL QUALIFICATIONS

Name	Company	UT	MI	PT	VT
Jackson, T. E.	SwRI	п•	11	11	11
Jensen, W. A.	SwRI	п •	II	II	II
Kleinjan, D. R.	SwRI	п.	II	11	11
Kimball K. D.	SSI	1 **			
Porterfield, C. L.	SSI	1	1	1	
Smith, D. J.	SSI	II	II	11	II
Pennanen, A. R.	NES	III•	ш	m	II
Graham, J. T.	HAP	•••	п	11	II
Hubbard, S. K.	HL&P	***	III	III	III
Halley, J. F.	HL&P	***	II	11	II
Murry, C. A.	HL&P	***	II	II	II
Silva, P.	HL&P	***	II	II	II
Suhler, C. D.	HL&P	***	11	II	II

### Company

SwRI - Southwest Research Institute

SSI - Sonic Systems International, Inc.

NES - Nuclear Energy Services
HL&P - Houston Lighting & Power Company

<sup>IGSCC Qualified by EPRI
Level I Trainee</sup> 

<sup>\*\*\* -</sup> I'l Not Performed by HL&P Personnel

## APPENDIX 2-B

### SWRI MATERIAL AND EQUIPMENT

Date	MATERIAL		Conffication
Berol Prismacolor White Pencils #938, Log #2780   26 Feb 90	Type	Certification Date	
Kodak Neutral Gray Card (1/64" Black Line),         Log #1766         02 May 83           MT No. 14 AM Prepared Bath, Magnaflux,         Batch No. 88M022, Log #2744         01 Jan 89           PT Cleaner PR1, Ardrox, Batch OB130200         09 Apr 90           PT Penetrant P6F2, Ardrox, Batch 9H0108         09 Apr 90           PT Developer D1, Ardrox, Batch 9L0808         21 Mar 90           Sonotrace 40, Batch #8979, Log #2857         11 Jan 90           EQUIPMENT         Calibration           Brand         Serial No.         Date           Pyrometer, Amprobe, Fastemp         133         02 Jan 90           Pyrometer, Amprobe, Fastemp         133         02 Jan 90           Pyrometer, Amprobe, Fastemp         159         09 Nov 89           Magnetic Particle Yoke, Parker         612-S         21 Dec 89           Magnetic Particle Yoke, Parker         5839         21 Dec 89           Magnetic Particle Yoke, Whiteline         WL-1-12         27 Mar 90           Magnetic Particle Yoke, Whiteline         WL-1-17         27 Mar 90           Magnetic Particle Calibration Block, 11.3 lbs         B70198-16         17 Mar 81           Spectroline DM-365X Radiometer         162817         07 Mar 90           Pressure Gauge, US Gauge         PG-10         20 Oct 89		26 Feb 90	
Log #1766   02 May 83     MT No. 14 AM Prepared Bath, Magnaflux, Batch No. 88M022, Log #2744   01 Jan 89     PT Cleaner PR1, Ardrox, Batch OB130200   09 Apr 90     PT Penetrant P6F2, Ardrox, Batch 9H0108   09 Apr 90     PT Developer D1, Ardrox, Batch 9L0808   21 Mar 90     Sonotrace 40, Batch #8979, Log #2857   11 Jan 90     EQUIPMENT   Calibration     Brand   Serial No. Date     Pyrometer, Amprobe, Fastemp   118   02 Jan 90     Pyrometer, Amprobe, Fastemp   133   02 Jan 90     Pyrometer, Amprobe, Fastemp   159   09 Nov 89     Magnetic Particle Yoke, Parker   612-S   21 Dec 89     Magnetic Particle Yoke, Parker   5839   21 Dec 89     Magnetic Particle Yoke, Whiteline   WL-1-12   27 Mar 90     Magnetic Particle Yoke, Whiteline   WL-1-17   27 Mar 90     Magnetic Particle Yoke, Whiteline   WL-1-19   27 Mar 90     Magnetic Particle Calibration Block, 11.3 lbs   B70198-16   17 Mar 81     Spectroline DM-365X Radiometer   162817   07 Mar 90     Pressure Gauge, US Gauge   PG-10   20 Oct 89     Pressure Gauge, Ashcroft   PG-11   19 Apr 90     Neutral Grey Cards, Kodak			26 Feb 90
MT No. 14 AM Prepared Bath, Magnaflux, Batch No. 88M022, Log #2744  PT Cleaner PR1, Ardrox, Batch OB130200  PT Penetrant P6F2, Ardrox, Batch 9H0108  PT Developer D1, Ardrox, Batch 9H0808  Sonotrace 40, Batch #8979, Log #2857  EQUIPMENT  Calibration  Brand  Serial No.  Date  Pyrometer, Amprobe, Fastemp  118  02 Jan 90  Pyrometer, Amprobe, Fastemp  159  09 Nov 89  Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Whiteline  ML-1-12  Magnetic Particle Yoke, Whiteline  ML-1-17  Magnetic Particle Calibration Block,  11.3 lbs  Spectroline DM-365X Radiometer  PG-10  Poot 89  Pressure Gauge, US Gauge  PG-10  PG-11  Neutral Grey Cards, Kodak	나는 그들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람들은 사람	ne),	02 May 82
Batch No. 88M022, Log #2744       01 Jan 89         PT Cleaner PR1, Ardrox, Batch OB130200       09 Apr 90         PT Penetrant P6F2, Ardrox, Batch 9H0108       09 Apr 90         PT Developer D1, Ardrox, Batch 9L0808       21 Mar 90         Sonotrace 40, Batch #8979, Log #2857       11 Jan 90         EQUIPMENT       Calibration         Brand       Serial No.       Date         Pyrometer, Amprobe, Fastemp       118       02 Jan 90         Pyrometer, Amprobe, Fastemp       133       02 Jan 90         Pyrometer, Amprobe, Fastemp       159       09 Nov 89         Magnetic Particle Yoke, Parker       612-S       21 Dec 89         Magnetic Particle Yoke, Whiteline       WL-1-12       27 Mar 90         Magnetic Particle Yoke, Whiteline       WL-1-17       27 Mar 90         Magnetic Particle Yoke, Whiteline       WL-1-19       27 Mar 90         Magnetic Particle Calibration Block,       11.3 lbs       B70198-16       17 Mar 81         Spectroline DM-365X Radiometer       162817       07 Mar 90         Pressure Gauge, US Gauge       PG-10       20 Oct 89         Pressure Gauge, Ashcroft       PG-11       19 Apr 90         Neutral Grey Cards, Kodak			02 May 63
PT Cleaner PR1, Ardrox, Batch OB130200 PT Penetrant P6F2, Ardrox, Batch 9H0108 PT Developer D1, Ardrox, Batch 9L0808 Sonotrace 40, Batch #8979, Log #2857  EQUIPMENT  Brand  Serial No.  Calibration Date  Pyrometer, Amprobe, Fastemp 118 02 Jan 90 Pyrometer, Amprobe, Fastemp 133 02 Jan 90 Pyrometer, Amprobe, Fastemp 159 09 Nov 89  Magnetic Particle Yoke, Parker Magnetic Particle Yoke, Whiteline WL-1-12 Wagnetic Particle Yoke, Whiteline WL-1-17 Wagnetic Particle Yoke, Whiteline WL-1-17 Wagnetic Particle Yoke, Whiteline WL-1-19 Magnetic Particle Calibration Block, 11.3 lbs Spectroline DM-365X Radiometer  PG-10 Posture Gauge, US Gauge Pressure Gauge, Ashcroft Posture Garbane Ashcroft Posture Posture Ashcroft Posture Posture Ashcroft Posture Posture Posture Ashcroft Posture Pos			01 Jan 89
PT Developer D1, Ardrox, Batch 9L0808 Sonotrace 40, Batch #8979, Log #2857  EQUIPMENT  Calibration Brand Serial No.  Pyrometer, Amprobe, Fastemp Pyrometer, Amprobe, Pastemp Pyrometer, Pastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Pastemp Pyrome		)	09 Apr 90
EQUIPMENT  Calibration Brand  Serial No.  Pyrometer, Amprobe, Fastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Fastemp Pyrometer, Amprobe, Pastemp Pyrometer, Pastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Paste		3	09 Apr 90
EQUIPMENT  Brand  Serial No.  Date  Pyrometer, Amprobe, Fastemp Pyrometer, Amprobe, Pastemp Pyrometer, Amprobe, Pa	PT Developer D1, Ardrox, Batch 9L0808		
Brand  Serial No.  Calibration Date  Pyrometer, Amprobe, Fastemp Pyrometer, Amprobe, Parker Pyrometer, Amprobe, Parker Pyrometer, Amprobe, Par	Sonotrace 40, Batch #8979, Log #2857		11 Jan 90
Pyrometer, Amprobe, Fastemp 118 02 Jan 90 Pyrometer, Amprobe, Fastemp 133 02 Jan 90 Pyrometer, Amprobe, Fastemp 159 09 Nov 89  Magnetic Particle Yoke, Parker 612-S 21 Dec 89 Magnetic Particle Yoke, Parker 5839 21 Dec 89 Magnetic Particle Yoke, Whiteline WL-1-12 27 Mar 90 Magnetic Particle Yoke, Whiteline WL-1-17 27 Mar 90 Magnetic Particle Yoke, Whiteline WL-1-19 27 Mar 90 Magnetic Particle Calibration Block, 11.3 lbs B70198-16 17 Mar 81 Spectroline DM-365X Radiometer 162817 07 Mar 90  Pressure Gauge, US Gauge PG-10 20 Oct 89 Pressure Gauge, Ashcroft PG-11 19 Apr 90  Neutral Grey Cards, Kodak	EQUIPMENT		
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Pyrometer, Amprobe, Fastemp 159 09 Nov 89  Magnetic Particle Yoke, Parker 612-S 21 Dec 89  Magnetic Particle Yoke, Parker 5839 21 Dec 89  Magnetic Particle Yoke, Whiteline WL-1-12 27 Mar 90  Magnetic Particle Yoke, Whiteline WL-1-17 27 Mar 90  Magnetic Particle Yoke, Whiteline WL-1-19 27 Mar 90  Magnetic Particle Calibration Block,  11.3 lbs 870198-16 17 Mar 81  Spectroline DM-365X Radiometer 162817 07 Mar 90  Pressure Gauge, US Gauge PG-10 20 Oct 89  Pressure Gauge, Ashcroft PG-11 19 Apr 90  Neutral Grey Cards, Kodak	Pyrometer, Amprobe, Fastemp	118	02 Jan 90
Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Whiteline  Mu-1-12  Magnetic Particle Yoke, Whiteline  Mu-1-17  Magnetic Particle Yoke, Whiteline  Mu-1-19  Magnetic Particle Yoke, Whiteline  Mu-1-19  Magnetic Particle Calibration Block,  11.3 lbs  Spectroline DM-365X Radiometer  Magnetic Particle Calibration Block,  11.3 lbs  B70198-16  17 Mar 81  Spectroline DM-365X Radiometer  PG-10  Pressure Gauge, US Gauge  PG-10  PG-11  PG-11  Neutral Grey Cards, Kodak	Pyrometer, Amprobe, Fastemp	133	02 Jan 90
Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Whiteline  Magnetic Particle Calibration Block,  11.3 lbs  Spectroline DM-365X Radiometer  Pressure Gauge, US Gauge  Pressure Gauge, Ashcroft  PG-10  Pressure Gauge, Ashcroft  PG-11  Neutral Grey Cards, Kodak	Pyrometer, Amprobe, Fastemp	159	09 Nov 89
Magnetic Particle Yoke, Parker  Magnetic Particle Yoke, Whiteline  Magnetic Particle Calibration Block,  11.3 lbs  Spectroline DM-365X Radiometer  Pressure Gauge, US Gauge  Pressure Gauge, Ashcroft  PG-10  Pressure Gauge, Ashcroft  PG-11  Neutral Grey Cards, Kodak	Magnetic Particle Yoke, Parker	612-S	21 Dec 89
Magnetic Particle Yoke, Whiteline Magnetic Particle Yoke, Whiteline Magnetic Particle Yoke, Whiteline Magnetic Particle Calibration Block,  11.3 lbs Spectroline DM-365X Radiometer  Pressure Gauge, US Gauge Pressure Gauge, Ashcroft  Neutral Grey Cards, Kodak  PL-1-17  27 Mar 90  R-10  17 Mar 81  162817  PG-10  20 Oct 89  Pressure Gauge, Ashcroft PG-11  Neutral Grey Cards, Kodak	Magnetic Particle Yoke, Parker	5839	
Magnetic Particle Yoke, Whiteline Magnetic Particle Calibration Block, 11.3 lbs Spectroline DM-365X Radiometer  Pressure Gauge, US Gauge Pressure Gauge, Ashcroft  Neutral Grey Cards, Kodak  WL-1-19 27 Mar 90  PRO198-16 17 Mar 81 162817 07 Mar 90  PG-10 19 Oct 89 19 Apr 90	Magnetic Particle Yoke, Whiteline	WL-1-12	27 Mar 90
Magnetic Particle Calibration Block,  11.3 lbs  Spectroline DM-365X Radiometer  Pressure Gauge, US Gauge Pressure Gauge, Ashcroft  PG-10 Pressure Gauge, Ashcroft  PG-11  Neutral Grey Cards, Kodak		WL-1-17	27 Mar 90
11.3 lbs Spectroline DM-365X Radiometer B70198-16 17 Mar 81 162817 07 Mar 90 Pressure Gauge, US Gauge PG-10 Pressure Gauge, Ashcroft PG-11 19 Apr 90 Neutral Grey Cards, Kodak		WL-1-19	27 Mar 90
Spectroline DM-365X Radiometer 162817 07 Mar 90  Pressure Gauge, US Gauge PG-10 20 Oct 89  Pressure Gauge, Ashcroft PG-11 19 Apr 90  Neutral Grey Cards, Kodak			
Pressure Gauge, US Gauge Pressure Gauge, Ashcroft PG-10 19 Apr 90  Neutral Grey Cards, Kodak			
Pressure Gauge, Ashcroft PG-11 19 Apr 90  Neutral Grey Cards, Kodak	Spectroline DM-365X Radiometer	162817	07 Mar 90
Neutral Grey Cards, Kodak	Pressure Gauge, US Gauge	PG-10	20 Oct 89
	Pressure Gauge, Ashcroft	PG-11	19 Apr 90
	Neutral Grey Cards, Kodak		
		Log 1766	02 May 83

APPENDIX 2-B

## SWRI MATERIAL AND EQUIPMENT, cont'd

EQUIPMENT		Calibration
Brand	Serial No.	
Sonic FTS MK I	553	01 Mar 90
Sonic FTS MK I	554	10 Jan 90
Sonic FTS MK I	01113E	26 Mar 90
Sonic FTS MK I	01118E	23 Mar 90
Sonic FTS MK I	01119E	21 Mar 90
Sonic FTS MK I	04323E	23 Mar 90
Sonic FTS MK I	04328E	15 Jan 90
Sonic FTS MK I	760524	07 Mar 90
Sonic FTS MK I	760712	20 Mar 90
Sonic FTS MK I	780419	22 Mar 90

### APPENDIX 2-B

## SWRI MATERIAL AND EQUIPMENT, cont'd

### TRANSDUCERS

Brand	Serial No.	Certification Date
Aerotech	015565	29 Nov 89
Aerotech	012905	18 Jul 89
Aerotech	H24833	08 Feb 90
Aerotech	J09165	14 Nov 89
Aerotech	M01907	05 Jan 90
Aerotech	M104	17 Oct 89
SwRI	844	07 Mar 90
SwRI	1802	11 Dec 89
SwRI	1819	07 Mar 90
SwRI	1845	18 Jan 90
SwRI	2043	11 Dec 89
SwRI	2547	06 Mar 90
SwRI	2553	06 Mar 90
SwRI	2787	07 Nov 89
SwRI	2923	06 Mar 90
SwRI	3362	28 Nov 89
SwRI		08 Nov 89
SwRI	345.	08 Nov 89
SwRI	3673	14 Sep 89
SwRI	3677	14 Sep 89
SwRI	3782	05 Apr 90

#### HL&P MATERIAL AND EQUIPMENT

## MATERIAL

Type

PT Cleaner SKC-NF/ZC-7B, Magnaflux, Batch 88A004
PT Cleaner SKC-NF/ZC-7B, Magnaflux, Batch 88F079
PT Penetrant SKL-HF/S, Magnaflux, Batch 87C037
PT Developer SKD-NF/ZP-9B, Magnaflux, Batch 88E035

## EQUIPMENT

		Calibration
Brand	Serial No.	Due Date
Thermometer	100-00520-04	6-09-90
Thermometer	100-00520-10	7-11-90
Thermometer	100-00520-49	6-09-90
Thermometer	100-00520-70	6-26-90
Thermocouple	100-00534-23	8-19-90
Thermocouple	100-00534-29	7-27-90
Thermocouple	100-00534-36	6-12-90
Thermocouple	100-00534-39	8-19-90
MT Yoke, Magnaflux, Y-6	43530	N/A
MT Yoke, Magnaflux, Y-6	Y6-02	N/A
MT Calibration Block	100-04000-02	6-19-90
MT Calibration Block	100-04000-03	6-19-90

APPENDIX 2-C PROCEDURES

## SWRI OPERATING PROCEDURES

Procedure No.	Title
IX-FE-101-5 Change 1	Deviations to Nuclear Projects Operating Procedures
IX-FE-103-4	Weld Joint Identification Marking on Nuclear Power Plant Piping
IX-FE-110-4	Black Light Intensity Measurements
IX-FE-116-2	Recording Data from Direct Visual, Liquid Penetrant, and Magnetic Particle Examinations
IX-FE-117-6	Recording Indications During Ultrasonic Examinations of Pressure- Retaining Components and Supports
IX-FE-118-5	Recording Indications During Ultrasonic Examinations of Pressure Vessel Welds
IX-FE-131-0	Comparison of Inservice Examination Data
IX-FE-132-0	Ultrasonic Indication Resolution Procedure
IX-FE-137-0	Ultrasonic Linearity Measurements

### SWRI NDT PROCEDURES

Procedure No.	Title
SwRI-NDT-200-5/3 Dev. 1	Fluorescent, Water-Washable Liquid Penetrant Examination of Roto-Lok Studs
SwRI-NDT-300-2/43 Dev. 1	Fluorescent Magnetic Particle Examination
SwRI-NDT-600-11/46	Manual Ultrasonic Examination of Nozzle Inner Radius
SwRI-NDT-600-15/73	Manual Ultrasonic Examination of Pressure Vessel Welds
SwRI-NDT-600-19/35 Dev. 1	Manual Ultrasonic Examination of Pressure-Retaining Studs and Bolts Greater Than 2 Inches in Diameter
SwRI-NDT-600-39/10 Dev. 1	Manual Ultrasonic Examination of Small-Diameter Piping Welds
SwRI-NDT-600-41/19 Dev. 2	Manual Ultrasonic Examination of Ferritic Pressure Piping Welds
SwRI-NDT-600-49/3	Manual Ultrasonic Examination Using Longitudinal Wave Straight- Beam Techniques
SwRI-NDT-800-22/3	Manual Ultrasonic Examination of the Pressure-Retaining RPV Studs at the South Texas Project
SwRI-NDT-800-36/41	Manual Ultrasonic Examination of Austenitic Thin Wall Piping Welds

## SwRI NDT PROCEDURES, cont'd

Procedure No.	Title
SwRI-NDT-800-109/3	Inside Surface Examination of the Access Holes in Pressure- Retaining Studs Greater Than 2 Inches in Diameter
SwRI-NDT-800-114/4 Dev. 1 Dev. 2 Dev. 4	Manual Ultrasonic Examination of Similar and Dissimilar Metal Welds in Austenitic Piping Systems for the South Texas Project
SwRI-ND \(\Gamma\)-800-132/0 Dev. 1	Manual Ultrasonic Examination of Austenitic Pressure Piping Welds at South Texas Project
SwRI-NDT-900-7/15	Visual Examination of Nuclear Power Plant Components

## HL&P PROCEDURES

Procedure No.	Title
NDEP 6.2, Rev. 2	Color Contrast Solvent Removable Liquid Penetrant Examination of ASME XI PSI/ISI
NDEP 7.1, Rev. 0	Dry Powder Magnetic Particle Examination for ASME XI PSI/ISI
NDEP 9.3, Rev. 0	ASME XI Examination for VT-1 and VT-3

# APPENDIX 2-D ISI EXAMINATION LIMITATIONS

## ISI EXAMINATION LIMITATIONS

## Table of Contents

	Page
South Texas Project Electric Generating Station, Unit 1 Summary of Inservice Examination Limitation	2-40
Class 1 Components	
ASME Category B-B Pressurizer Steam Generator	2-43
ASME Category B-D Steam Generator	2-44
ASME Category B-G-1 RPV Closure Head Bolting	2-45
ASME Category B-J Piping Reactor Coolant System	2-46
Class 2 Components	
(Name)	

#### SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1 SUMMARY OF INSERVICE EXAMINATION LIMITATIONS

The following tables provide details on the limitations which were encountered during the inservice examinations (ISI) at the South Texas Project Electric Generating Station (STP), Unit 1. Each table of this summary provides the following information as described:

#### Column 1 - Class/Category/Item No./Examination Requirement

Identifies the ASME Secuon XI Cooc Class, Category, Item Number, and Examination Requirement (volumetric or surface) for the specific examination area listed in Column 2. This information is derived from Tables IWB-2500-1 and IWC-2500-1 of the 1983 Edition of ASME Section XI (with Addenda through Summer 1983), and Tables 1 and 2 of Code Case N-408.

Column 2 - No./Subassembly
Weld Identification
Weld ID Figure
Weld in figuration
Examination Method

Provides information for each examination area by line number (piping) or subassembly number (vessel), unique weld identification number, SwRI weld ID figure reference, weld contiguration (pipe-to-tee, head-to-shell, etc.), and examination method (UT, UT/PT, or UT/MT).

### Column 3 - Exam Type

Lists the Methods of Examinations used for each area by specific angles for UT (0, 45, 45T, 60, 60T) and surface technique (MT or PT), if required.

### Column 4 - % Coverage

The extent of coverage for each exam type is expressed in percentages based on the examination volume/area required in Section XI. Depending on method, the percentage coverage may be represented in more than one way.

Surface methods are the simplest and are expressed as a percentage of the required surface area receiving no coverage and the remaining balance from 100% as the total coverage.

Ultrasonic coverage is first expressed for each exam type as a percentage of the volume receiving no coverage, angle-beam coverage in one direction only, and angle-beam coverage in two directions. These percentages are then used to compute the effective coverage for that exam type. In the case of 0 degree, the effective coverage is equal to the balance of 100% minus the percentage receiving no coverage. The effective coverage for angle beam is calculated from the following formula:

$$c = \frac{a + 2b}{2}$$
 (effective coverage formula, angle beam)

where a = one direction only percentage b = two direction percentage

Examples:

$$c = \frac{0 + 2*100}{2} = 100\% \text{ effective coverage}$$

$$c = \frac{100 + 2^*0}{2} = 50\% \text{ effective coverage}$$

$$c = \frac{50 + 2^{\circ}0}{2} = 25\% \text{ effective coverage}$$

The total UT coverage is then expressed as the average of the effective coverage percentages for each UT exam type. Each UT exam type is considered as equal weight in the calculation of the average.

## Column 5 - Limitation

A description of the type of limitation and primary reason for why the coverage was limited is provided in this section.

1990 1RE02 ISI SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

#### ASME CATBOORY B-B

SYSTEM: PRESSURIZER (CLASS 1)

CLASS	- LINE NO./SUBASSEMBLY - WELD IDENTIFICATION - WELD ID FIGURE - EXAMINATION METHOD			s co	VERAGI			
CATGY ITEM NO. EXM RQT		EXAM TYPE	NONE	I DIR	2 DIR	EFF.	TOTAL	LIMITATION
1	PRZ-1	UTO	4	- 11	-	96		LIMITED UT FROM THE SHELL SIDE DUE
B-B	CI	UT45	2	9	89	94		TO PROXIMITY OF PERMANENT PIPE
B2.11	PIGURE NO. A-RPV-2	UT45T	4	0	96	96		SUPPORTS AND 3/4" INSTRUME TATION
VOL		UT60	1	12	87	93		LINES.
	HEAD-TO-SHELL	UT60T	4	0	96	96		
	UT						95	

SYSTEM: STEAM GENERATOR IA (CLASS I)

CLASS	- LINE NO./SUBASSEMBLY - WELD IDENTIFICATION - WELD ID FIGURE - EXAMINATION METHOD			s co	VERAO					
CATGY ITEM NO. EXM RQT		EXAM	NONE	1 DIR ONLY	2 DIR	EFF.	TOTAL	LIMITATION		
1	SG-1A	UTO	34	-	-	66		NO UT FROM THE SUPPORT KING SIDE DUE		
B-B	SRI	UT45	11	58	31	60		TO SUPPORT RING CONFIGURATION.		
B2.31	FIGURE NO. A-SG-1	UT45T	34	0	66	66		LEMITED UT45 AND UT60 FROM THE HEAD		
VOL		UT60	16	67	17	51	100	SIDE DUE TO PROXIMITY OF INLET AND		
	HEAD-TO-SUPPORT RING UT	UT60T	34	0	66	56		OUTLET NOZZLE WELDS.		
							62			
	SG-1A	UTO	45			55		NO UT FROM THE SUPPORT RING SIDE DUE		
B-B	SR2	UT45	9	57	34	63		TO SUPPORT RING CONFIGURATION.		
82.40	FIGURE NO. A-SO-1	UT45T	١	0	55	55		LIMITED UT45 AND UT60 FROM THE TUBE		
VOL		UT60	6	74	20	57		PLATE SIDE DUE TO PROXIMITY OF		
	SPT RING-TO-TUBE PLATE	UT60T	45	0	55	55		WELDED PLATES.		
	UT						57			

1990 1RE02 ISI SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

#### ASME CATBOORY B-D

SYSTEM: STEAM GENERATOR IA (CLASS I)

CLASS	- LINE NO./SUBASSEMBLY - WELL IDENTIFICATION - WILD ID FIGURE - EXAMINATION METHOD			* 00	VERAGI			
CATOY ITEM NO. EXM RQT		EXAM	NONE	I DIR	100 100 100 100 100	EFF.	, ,	LIMITATION
1 B-D B3.130 VOL	SO-IA IN FIGURE NO. A-SO-I NOZZLE-TO-HEAD UT	UTO UT45 UT45T UT60 UT60T	0 1 0	7 0 14 0	93 99 86 99	99 97 99 93 99	97	TY OF WELD SRI AND VIBRATION FRUMENTATION BOX.
1 B-D B3.130 VOL	SO-1A ON FIGURE NO. A-SO-1 NOZZLE-TO-HEAD UT	UT0 UT45 UT45T UT60 UT60T	2 1 2 0 2	6 0 13 0	93 98 87 98	98 96 91 74 98	97	LIMITED UT FROM THE HEAD SIDE DUE  1 "> PROXIMITY OF WELD SRI AND VIBRATION SENSOR INSTRUMENTATION BOX.

1990 1RE02 ISI SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

#### ASME CATBOORY B-G-1

SYSTEM: RPV CLOSURE HEAD BOLTING (CLASS 1)

CLASS	- LINE NO./EUBASSEMBLY - WELD IDENTIFICATION			\$ 00	VERAGI	E			
SATOY STEM NO. EXM RQT	- WFI D ID PIOURE - EXAMINATION METHOD	EXAM	NONE	I DIR	2 DIR	EFF.	TOTAL	LIMITATION	
CLOSURE NUTS 1A,4A,7A,10A,13A,16A, 19A,22A,25A,28A,31A,34A SURP -/GURE NO. A-RPV-2		UTO UT43	,		<b>6</b> 2	91	91	LIMITED UT FROM THE OD SURFACE DUE TO SPANNER WRENCH SLOTS. UT PERFORMED AS A SUPPLEMENTAL EXAMINATION OF THE THREADED ARFA MT PERFORMED ON ALL SURFACES EXCEPT	
	UTACT	мт	0		-		100	THE THREADED PORTION DUE TO MT YOKE ACCESS.	
1 CLOSURE STUDS B-G-1 1A.4A.7A.10A.13A.16A. B6.30 19A.22A.25A.28A.31A.34A VOL/SURF		UT45/60	0	11	89	95	05	EXAMINATION VOLUME IN ACCORDANCE WITH CODE CASE N-307-1. LIMITED UT OF THE ROTO-LOK LUGS DUI TO CONFIGUR \TION OF THE LUGS.	
VOLSORF	FIGURE NO. A-RPV-2	-					1 23	TO CONTROL STAN OF THE LOOS.	
	UT/MT/PT	MT/PT	0				100		

1990 1RE02 ISI SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION, UNIT 1

#### ASME CATROORY B-J

SYSTEM: REACTOR COOLANT (CLASS I PIPING)

CLASS	- LINE NO./SUBASSEMBLY - WELD IDENTIFICATION - WELD ID PIGURE - EXAMINATION METHOD	EXAM TYPE		s co	VERAG	2		
CATOY FTEM NO. EXM RQT			NONE	I DER	E022(23)	EFF.	TOTAL	LIMITATION
1 B-J B9.11 VOL/SURF	11 FIGURE A-RC-12	45/60 45T	0 17	0	96 83	99 83		NO UT FROM THE VALVE SIDE DUE TO VALVE CONFIGURATION.
	UT/PT	PT	0				100	

OWNER'S REPORT FOR INSERVICE INSPECTIONS NIS-1 FORMS

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

	Company and the second second	I the state of the	Company of the Compan
1. Owner Houston Ligh		Electric Tower; P.O. Box 170 Address of Owner)	O; Houston, Texas 77001
2. Plant South Texas P		g Station; P.O. Box 289; Wad Address of Plant)	sworth, Texas 77483
3. Plant Unit 1		d Certificate of Authorization	The Committee of the Co
5. Commercial Service I	Date 08/25/88 6. Nation	nal Board Number for Unit _	N.A.
7. Components Inspecte		s 1 (TWB) Items - Welds Pro for Ideatification Numbers)	gram
Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
Reactor Pressure Vessel	Combustion Engineering/ Westinghouse (M)	11073	22190
Steam Generator	Westinghouse (M)	2131	W18691
Steam Generator 1B	Westinghouse (M)	2132	W18692
Steam Generator	Westinghouse (M)	2133	W18693
Steam Generator 1D	Westinghouse (M)	200	W18694
Pressurizer	Westinghouse (M)	2141	W18590
Class 1 Piping	Ebasco (I)	N.A.	N.A
			haim bearing

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 each form.

Examination Dates 04/13/30	o <u>05/05/90</u> 9. îns	pection Interval from <u>U8/25/88</u> to <u>08/25/9</u>
O. Abstract of Examinations. Include required for current interval. (AS		s and a statement concerning status of wo
See Page 3 of 3 for list of eas	r 'nations performed.	The examinations performed this outage as of the required craminations for the curre
1. Abstract of Conditions Noted.		
Relevant visual indications (ev	A (inlet and outlet), I	g~) were noted on or near the primary manw L (inlet only), and 1C (outlet only). No oth were noted.
2. Abstract of Corrective Measures F	Recommended and Tak	en.
1A) was expanded to include Therefore, all Steam Generato by Engineering determined the were taken or recommended	the primary manway bold or primary manway bold is manways and bolting . Because no correct	eam Generator primary manway bolting (Scholling of Steam Generators 1B, 1C, and 1 ing was examined. Evaluation of this conditing were acceptable and no corrective measurable action was taken, the primary manway during the next three (3) inspection period
We certify that the statements	made in this report a	re correct and the examinations and correct
neasures taken conform to the rules		
Continue of Ausbanianian No (if an	-Ubles NA	P-1-1 P-1 NA
Certificate of Authorization No.(if ap	plicable) N.A.	Expiration Date
Date 6.21 19 90 S	igned Houston Light	ing & Power Co. By Saudan & Sandra R. L. Beverly
	Own	ner R. L. Beverly
CERTIF	KATE OF INSERVI	CE INSPECTION
I, the undersigned, holding a valid	commission issued by	the National Board of Boiler and Pressur
Vessel Inspectors and the State or P	rovince of Texas and e	mployed by Arkwright Mutual Insurance Co
of Norwood, Mass have inspected in	the components describ	ed in this Owner's Report during the perio
4-1- 90 10 7-9-9	o, and state that	to the best of my knowledge and belief, th
		measures described in this Owner's Report i
accordance with the inspection plan		
by signing this certificate nei	ther the inspector nor	his employer makes any warranty, express of
European neither the Inspector	ons and corrective m	neasures described in this Owner's Repor
in un or property demand or a los	of any kind arising &	all be liable in any manner for any person or connected with this inspection.
might of property damage of a los	or any and arising if	on of connected with this inspection.
41)		Factory Mutual System
- Admill	Commissions	Tex 826
Inspector's Signature B. R. Russell		tional Board, State, Province, and Endorsemen

7-9- 19 90

Date

## SUPPLEMENT TO FORM NIS-1 OWNER'S REPORT FOR INSTRUCE INSPECTIONS FOR

#### ASME Code Class 1 (TWB) Items - Welds Program

- 1. Owner Houston Lighting & Power Company, Electric Tower, P.O. Box 1700; Houston, Texas 77001
  (Name and Address of Owner)
- 2. Plant Scuth Texas Project Electric Generating Station; P.O. Box 289; Wadsworth, Texas 77483

  (Name and Address of Plant)
- 3. Plant Unit 1 d. Owner and Certificate of Authorization (if required) N.A.
- 5. Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.

ASME	ASME	COMPONENT	The state of the s	EXAM	CONTRACTOR OF THE PARTY OF THE
CATOY	ITEM	or SYSTEM	IDENTIFICATION NO.	METHOD	REMARKS
D-B	B2.11	PRZR	PR2-1-C1	UT	SHELL-TO-HEAD - CIRCUMFERENTIAL WELD
9-B	B2.12	PRZR	PRZ-1-L1	UT	SHELL-TO-HEAD - LONGITUDINAL WELD
B-B	B2.31	STM GEN	20-1A-SR1	UT	CIRCUMFERENTIAL HEAD WELD
B-B	B2.40	STM GEN	90-1A-SR2	UT	TUBESHEET-TO-HEAD WELD
- "	23.130	STM OEN	80-1A-ON	UT	NOZZLE-TO-VESSEL WELD
a.	23.130	STM OEN	80-1A IN	UT	NOZZLE-TO-VESSEL WELD
- 749	B3.140	STM GEN	SG-1A-ON-DR	UT	NOZZLE INSIDE RADIUS SECTION
5.5	B3.140	STM OEN	90-1A-DI-IR	UT	NOZZLE INSIDE RADIUS SECTION
B-O-1	B6.10	RPV	CLOSURE NUTS	MT/UT	NOS. 1A.4A.7A.10A.13A.16A.19A.22A.25A.28A.31A.36A
8-0-1	26.30	RPV	CLOSURE STUDS	PT/MT/UT	NOS. 1A,4A,7A,10A,13A,16A,19A,22A,25A,28A,31A,34A
0-0-1	26.50	RPV	CLOSURE HEAD WASHERS	VT-1	NOS. 1A,4A,7A,10A,13A,16A,19A,22A,25A,28A,31A,34A
3-0-2	37.30	STM OEN	SO-IA-IMB	VT-1	BOLTS AND NUTS - INLET MANWAY
B-O-2	B7.30	STM GEN	SO-1A-OMB	AL-1	BOLTS AND NUTS - OUTLET MANWAY
B-O-2	B7.30	STM CEN	80-1B-DMB	VT-1	BOLTS AND NUTS - INLET MANWAY
B-O-3	B7.30	STM OEN	90-18-OMB	VT-1	BOLTS AND NUTS - OUTLE: MANWAY
B-O-2	B7.30	STM GEN	80-1C-IMB	VT-1	BOLTS AND NUTS - INLET MANWAY
B-G-2	<b>B</b> 7.30	STM GEN	SO-IC-OMB	VT-1	BOLTS AND NUTS - OUTLET MANWAY
B-C-2	B7.30	STM OEN	90-1D-IMB	VT-1	BOLTS AND NUTS - INLET MANWAY
D-O-2	87.30	STM CEN	SO-ID-OMB	VT-1	BOLTS AND NUTS - OUTLET MANV'AY
B-O-2	B7.50	CV	2(1.5)-CV-1122-2FB	VT-1	PLANGE BOLTING
B-J	B9.11	CV	4-CV-1001-1	UT.PT	CIRCUMPERENTIAL WELD
B-1	29.11	RC	8-RC-1114-1	UT.PT	CIRCUMFERENTIAL WELD
B-J	B9.11	RC	12-RC-1112-2	UT.PT	CIRCUMPERENTIAL WELD
B-J	B9.11	RC	12-RC-1112-7	UT PT	CIRCUMFERENTIAL WELD
D-1	89.11	RC	12-RC-1112-11	UT.PT	CIRCUMPERENTIAL WELD
B-J	D9.11	RC	12-RC-1125-3	UT.PT	CIRCUMPERENTIAL WELD
B-J	29.11	RC	12-RC-1125-13	UT.PT	CIRCUMPERENTIAL WELD
B-J	39.11	RH	10-RH-1308-3	UT.PT	CIRCUMFERENTIAL WELD
B-J	29.11	RH	10-RH-1300-6	UT.PT	CTRCUMPERENTIAL WELD
B-J	B9.11	RH	12-RH-1301-2	UT.PT	CIRCUMFERENTIAL WELD
D-1	D9.11	RH	12-RH-1301-6	UT.PT	CIRCUMPERENTIAL WELD
B-J	29.11	RH	12-RH-1301-9	UT.PT	CIRCUMPERENTIAL WELD
D-1	B9.11	21	6-81-1111-1	UT.PT	CIRCUMPERENTIAL WELD
B-J	B9.11	SI	6-8I-1327-5	UT.PT	CIRCUMFERENTIAL WELD
D-J	B9.11	SI	9-81-1327-5	UT.PT	CIRCUMPERENTIAL WELD
D-1	29.11	SI	8-87-1327-7	UT.PT	CIRCUMPERENTIAL WELD
B-J	B9.11	SI	12-SI-1125-4	UT.PT	CIRCUMPERENTIAL WELD
B-J	B9.21	cv	2-CV-1124-4	PT	CIRCUMPERENTIAL WELD
D-J	B9.21	CV	2-CV-1124-8	PT	CIRCUMFERENTIAL WELD
B-1	B9.21	CV	2-CV-1124-12	PT	CIRCUMPERENTIAL WELD
3-1	89.21	CV	2(1.5)-CV-1122-2	PT	CIRCUMPERENTIAL WELD

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

		idress of Owner)		
2. Plant South Texas	roject Electric Generating (Name and A	ddress of Plant)	wadsworth, T	exas 77483
3. Plant Unit 1	4. Owner and	Certificate of Author	ization (if requi	red) N.A.
	ate 08.25/88 6. National			
7. Components Inspective		2 (IWC) Items - Wel		
Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.		National Board No.
Class 2 Piping	Ebasco (I)	N.A.		N.A.
High Head SI Pump	Pacific Pumps (M)	51695		382
Low Head SI Pump	Pacific Pumps (M)	51701		420
	<b>建筑建设建筑建筑</b>			
PARTE STATE				

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 each form.

- 8. Examination Dates 03/29/90 to 04/16/90 9. Inspection Interval from 08/25/88 to 08/25/98
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. (ASME Code Class 2 IWC Items Welds Program)

  See Page 3 of 3 for list of examinations performed. The examinations performed this outage and previous outage constitute approximately 20 percent of the required examinations for the current Interval.
- 11. Abstract of Conditions Noted.
  No relevant conditions were noted.
- 12. Abstract of Corrective Measures Recommended and Taken.
  No corrective measures were taken or recommend d.

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

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

Date 6-21 19 90 Signed Houston Lighting & Power Co. By Render & General Owner R. L. Beverly

#### 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 Arkwright Mutual Insurance Co. of Norwood, Mass have inspected the components described in this Owner's Report during the period 3-15-90 to 7-10-90, 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, express 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.

Inspector's Signature Commissions Factory Mutual System

Tex 826

National Board, State, Province, and Endorsements

B. R. Russell

Date \_\_\_\_\_ 7-10 - 19 90

## SUPPLEMENT TO FORM NIS-1 OWN IR'S REPORT FOR INSERVICE INSPECTIONS FOR

## ASME Code Class 2 (WC) Items - Welds Program

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

- 2. Plant South Tesas Project Electric Generating Station; P.O. Box 289; Wadsworth, Texas 77483

  (Name and Address of Plant)
- 3. Plant Unit \_\_\_\_\_ 6. Owner and Certificate of Authorization (if required) N.A.
- 5. Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.

ASME	ASME	COMPONENT		EXAM	
CATOY	ITEM	or SYSTEM	IDENTIFICATION NO.	METHOD	REMARKS
C-C	C3.20	SI	24-SI-1101-8PL(1-7)	PT	INTEGRAL ATTACHMENTS
C-F-1		CS	6-CS-1103-12	UT.PT	CIRCUMFERENTIAL WELD/AUGMENTED ISI-IEB 79-17
C-7-1		CS	6-C3-1103-12 (LU)	UT PT	LONGITUDINAL WELD/AUGMENTED ISI-IEB 79-17
C-F-1		CS	8-CS-1102-11	UT.PT	CIRCUMPERENTIAL WELD/AUGMENTED ISI-IEB 79-17
C-P-1	C5.11	CS	12-CS-1101-2	UT.PT	CIRCUMPERENTIAL WELD
C-P-1	C5.12	CS	12-CS-1101-2 (LU/LD)	UT.PT	LONGITUDINAL WELDS
C-F-1		SI	10-51-1101-1	UT.PT	CIRCUMFERENTIAL WELD/AUGMENTED ISI-IEB 79-17
C-P-1		SI	10-SI-1101-1 (LD)	UT.PT	LONGITUDINAL WELD/AUGMENTED ISI-IEB 79-17
C-F-1	C5.11	SI	12-SI-1101-1	UT.PT	CIRCUMFERENTIAL WELD
C-F-1	C5.12	SI	12-SI-1101-1 (LD)	UT.PT	LONGITUDINAL WELD
C-F-1	C5.11	SI	16-SI-1101-1	UT,PT	CIRCUMPERENTIAL WELD
C-P-1	C5.12	SI	16-SI-1101-1 (LU,LD)	UT.PT	LONGITUDINAL WELDS
C-F-1	C5.11	SI	16-SI-1101-3	UT.PT	CIRCUMPERENTIAL WELD
C-P-1	C5.12	SI	16-SI-1101-3 (LUVO,LD)	UT.PT	LONGITUDINAL WELDS
C-F-1	C5.11	SI	16-SI-1101-5	UT.PT	CIRCUMFERENTIAL WELD
C-F-1	C5.12	SI	16-SI-1101-5 (LD)	UT.PT	LONGITUDINAL WELD
C-F-i	C5.21	SI	2-51-1106-15	UT.PT	CIRCUMFERENTIAL WELD
C-F-1	C5.30	SI	2-8:-1106-2	PT	SOCKET WELD
C-F-1	C5.30	SI	2-Si-1139-1	PT	SOCKET WELD
C-P-1	C5.51	MS	30-MS-1001-21	UT.MT	CIRCUMPERENTIAL WELD
C-P-1	C5.52	MS	30-MS-1001-21 (LUI/O,LD)	UT.MT	LONGITUDINAL WELDS
C-F-1	C5.51	MS	30-MS-1001-23	UT.MT	CIRCUMFERENTIAL WELD
C-F-1	C5.52	MS	30-MS-1001-23 (LU)	UT,MT	LONGITUDINAL WELD
C-F-1	C5.51	MS	30-MS-1004-4	UT.MT	CIRCUMFERENTIAL WELD
C-P-1	C5.52	мз	30-MS-1004-4 (LUVO.LD)	UT.MT	LONGITUDINAL WELDS
C-0	C6.10	HH SI PUMP	SIAPHH-1A-PCW1	PT	PUMP CASING WELD
C-0	C6.10	HH SI PUMP	SIAPHH-IA-PCW2	PT	PUMP CASING WELD
C-0	C6.10	LH SI PUMP	SIAPLH-1A-PCW2	PT	PUMP CASING WELD

#### 3.0 COMPONENT SUPPORT EXAMINATIONS

#### 3.1 Introduction

ISI of Class 1, 2, and 3 component supports of STPEGS-1 was performed between March 29 and May 29, 1990. These examinations constitute the second ISI of the first inspection interval for the Component Supports Examination Program.

This Section of the Summary Report documents the examinations of component supports performed by HL&P QC NDE Personnel in accordance with the following documents:

- (1) HL&P Specification 5U035JS003, "Inservice Inspection Examination of Component Supports of South Texas Project Electric Generating Unit 1 First Inspection Interval".
- (2) "Examination Plan for the 1990 1RE02 Inservice Inspection at the South Texas Project Electric Generating Station, Unit 1" including changes made during the outage (Outage Plan).

The HL&P Specification provides a detailed description of the rules for exemption and selection of Class 1, 2, and 3 component supports for ISI. The 1990 Examination Plan is an individual Outage Plan for implementing ISI component support examinations as designated in the HL&P Specification.

### 3.2 Scope of Examinations

A total of seventy-nine (79) component supports were visually examined. One of these supports was examined to meet preservice inspection (PSI) baseline requirements due to a modification performed during the outage. These supports, selected from the Component Supports ISI Examination Plan (5U035JS0003), constitute approximately thirteen (13) percent of the total piping and equipment supports required to be examined during the first inspection interval. When combined with the component supports examined during the first refueling outage (1RE01), approximately twenty (20) percent of the total piping and equipment supports required to be examined during the first inspection interval have been examined.

#### Class 1

One (1) Class I equipment support (Reactor Coolant Pump column) was examined and ten (10) Class I piping supports were examined in the following systems:

Reactor Coolant (RC)

Residual Heat Removal (RH)

6

#### Class 2

No Class 2 equipment supports were examined and twenty-seven (27) Class 2 piping supports were examined in the following systems:

Auxiliary Feedwater (AF)	4
Containment Spray (CS)	1
Feedwater(FW)	1
Main Steam (MS)	2*
Residual Heat Removal (RH)	3
Safety Injection (SI)	16

\* - Examination of one of the MS supports was a PSI baseline examination after a modification (strut replacement) was performed.

#### Class 3

Three (3) Class 3 equipment support (Component Cooling and Diesel Generator Fluid Systems) were examined and thirty-eight (38) Class 3 piping supports were examined in the following systems:

Auxiliary Feedwater (AF)	5
Component Cooling (CC)	28
Essential Cooling Water (EW)	4
Reactor Make-Up (RM)	1

A complete list of component supports examined during IRE02 is contained in Appendix 3-A.

#### 3.3 Personnel and Procedures

#### 3.3.1 Personnel Qualifications

Component supports were visually examined (VT-3 and VT-4) by HL&P QC NDE personnel certified in accordance with ASME Section XI (IWA-2300) and HL&P Operations Engineering Procedure OEP-9.04Q, "Personnel Certification Procedure for Visual Examination per ASME B&PV Code, Section XI" (Rev. 2). A listing of the personnel who performed visual examinations of component supports, including their certification level, is included in Appendix 3-B.

#### 3.3.2 Examination Procedure

Visual (VT-3 and VT-4) examinations of component supports was performed in accordance with OEP-9.07Q, "Inservice Inspection - Visual Examination of Component Supports" (Rev.0).

#### 3.4 Summary of Examinations

#### 3.4.1 Piping Supports

Seventy-five (75) piping supports were examined just prior to and during 1RE02, distributed among ten (10) piping systems as shown in Appendix 3-A. These examinations were conducted on rigid restraints (51), guides (16), and spring hangers (8).

#### 3.4.2 Equipment Supports

Four (4) equipment supports were examined just prior to and during 1RE02, distributed among three (3) systems as shown in Appendix 3-A.

#### 3.4.3 Additional and Successive Examinations

The results of the visual examinations of component supports performed during 1RE02 did not require that any additional examinations (IWF-2430) be performed or any successive examinations (IWF-2420) be scheduled.

#### 3.5 Examination Results and Corrective Actions

Three (3) Class 3 pipe supports were found to have reportable indications. EW-1102-HL500l had tape coat damage, EW-1121-HL500l had a loose lock nut, and CC-1116-RR01 had a damaged cotter pin and a missing cotter pin. These was reported on RFA Nos. 900092, 900093, and 901169, respectively. All three supports were or will be reworked to meet specification requirements.

### 3.6 Certification of Inspections

Section XI NIS-1 forms, "Owner's Report for Inservice Inspections", have been prepared to certify the STPEGS-1 component support ISI examinations described in this section of the Summary Report. The STPEGS-1 component support ISI examinations have been certified by our ANII, Factory Mutual Systems, on the NIS-1 forms included in Appendix 3-C.

APPENDIX 3-A
SUMMARY OF EXAMINATIONS

### APPENDIX 3-A ISI EXAMINATIONS OF COMPONENT SUPPORTS

	SUPPORT					INEUZ - S	PRING 1990	<b></b>	04-Jun-80
SYSTEM		NPS	-	TYPE.	METH	0100	CONSTRUCTION ISO DRAWING	EXAM	
LASS 1 - F		NPS	OL	ITPE-	MEIN	BLDG	180 DHAWING	COMPL'D	REMARKS
-	COOLANT SYSTE	-							
of designation of the second	C1123 - HL5011		1	RR	VT-3	ACB	4C369PRC457-07	05/07/90	
	C1123 - HL5012	4	1	RA	VT-3	ACB	4C369PRC457-07	05/07/90	
	C1125 - HL5009	12	1	SH	VT-3VT-4	RCB	4C369PRC457-10	05/09/80	
	C1125 - HL5010	12	,	GU	VT-3	RCB	4C369PRC457-10	05/02/90	
	L HEAT REMOVAL	100000		90		nce .	00308FHC457-10	02/02/30	
	H1201 - HL5002	12	1	89	VT-3	RCB	4C360PRH450-07	05/03/90	
	H1201 - HL5000	12	1	SH	VI-3VI-4	RCB	4C369PRH459-07	05/09/90	
	H1201 - HL5010	12	,	SH	VT-3VT-4	RCB	4C360PRH450-07	05/08/00	
	RH1201 - RR04	12	•	RR	VT-3	ACB	4C369PRH459-07	05/04/90	
	H1201 - RA05	12	,	GU	VT-3	ACB	4C369PRh450-07	05/07/90	
	H1201 - RR06	12	,	BR	VT-3	ACB	4C369PRH459-07	05/04/80	
	EQUIPMENT	16		nn	41-3	HUB	40300FM7450-07	05/04/60	
REACTO	COOLANT SYST	EM							
	APC1B		'	EQ	VT-3	ACB	N/A	05/04/90	REACTOR COOLANT PUMP 1018 - COL
LASS 2 -	MINISTER MANAGEMENT								
	Y FEEDWATER S	STEM							
	AF1012 - HL5008		2	RH	VT-3	ACB	& 169PAF402-01	05/04/80	
	AF1012 - HL5000		2	RR	VT-3	RCB	2C389PAF402-01	05/04/00	
	AF1012 - HL5010		2	RA	VT-3	ACS	2C360PAF402-01	05/02/90	
	AF1012 - HL5016		2	SH	VT-3VT-4	ACB	2C369PAF402-01	05/04/80	
CONTAIN	MENT SPRAY SY	STEM							
	051203 - HL5005		2	PAR	VT-3	FHB	5F360PCS515-04	04/03/90	
FEEDVA	TER SYSTEM								
	V1031 - HL5001	18	2	SH	VT-3/VT-4	IVC	2G389PFW633-04	05/29/90	
MAIN S	4 SYSTEM								
	002 - HL5002	30	2	RR	VT-3	RCB	2C369PMS446-02	05/22/80	PSI BASELINE (Ref. ECN 89-S-0017A)
	ME 003 - HL5018	30	2	SH	VT-3/VT-4	IVC	2G369PMS646-08	05/09/90	
RESIDUA	L FLAT REMOVAL	SYSTE	M						
	RH1103 - HL5001		2	RA	VT-3	RCB	4C369PRH459-03	05/01/80	
	PH1103 - RR04	8	2	RA	VT-3	RCB	4C369PRH459-03	05/01/80	
	AH1103 - RA06		2	GU	VT-3	RCB	4C369PRH459-03	05/01/80	
SAFETY	INJECTION BY STE	EM							
	SI1106 - GU0070		2	GU	VT-3	ACB	2C369PS1472-06	04/30/90	
	SI1108 - HL5001	6	2	RR	VT-3	RCB	2C369PSI472-06	05/01/00	
	SI1108 - HL5012		2	GU	VT-3	ACB	2C369PSI472-06	05/01/20	
	SI1106 - HL5013	6	2	GU	VT-3	FHB	2F361PSI572-05	04/03/90	
	SI1106 - RH05	8	2	RR	VT-3	FHB	2F381PSI572-05	04/03/90	
	SI1108 - RH06		2		VT-3	FHB	2F361PSI572-05	04/03/90	
	SI1106 - RH08	8	2	RA	VT-3	FHB	2F361PSI572-03	04/03/90	
	SI1106 - RR09		1	RA	VT-3	FHB	2F361PSI572-05	04/04/90	
	SI1106 - RR12	6	2	RR	VT-3	FHB	2F361PSI572-05	04/03/90	
	\$11108 - RR54	8	2	AR	VT-3	ACB	2C369PSI472-06	05/01/90	
	SI1106 - RR55	8	2	RA	VT-3	AC8	2C360PSI472-06	05/01/90	
	SI1106 - RR56	6	2		VT-3	ACB	2C369PSI472-08	05/01/90	
	SI1106 - RR57	8	2		VT-3	ACB	2C369PSI472-06	05/01/20	
	SI1108 - RR58		2		VT-3	ACB	2C309PSI472-08	05/01/00	
	811106 - RR59	6	2		VT-3	ACB	2C369PSI472-08	05/01/20	
	811108 - SH10		2		VT-3VT-4	FHB	2F381PSI572-05	04/03/80	

## - SUPPORT TYPE EQ -- Equipment

GU - Guide

RR - Rigid Restraint

SH - Spring Hanger

## APPENDIX 3-A ISI EXAMINATIONS OF COMPONENT SUPPORTS

	SUPPORT				EXAM		CONSTRUCTION	EXAM	
SYSTEM	MARK NO.	NPS	CL	TYPE.	METH	BLDG	ISO DRAWING	COMPL'D	REMARKS
LASS 3 -	THE REAL PROPERTY AND ADDRESS OF THE PERSON								
	RY FEEDWATER SY	STEM							
	AF1047 - HL5001	4	3	GU	VT-3	IVC	3G389FAF602-18	04/03/80	
	AF1047 - HL5002	4	3	AR	VT-3	IVC	3G369PAF602-18	04/03/00	
	AF1047 - HL5003	4	3	GU	VT-3	IVC	3G366PAF002-18	04/03/90	
	AF1047 - HL5004	4	3	GU	VT-3	IVC	3G308PAF602-18	04/03/80	
	AF1047 - HL5006	4	3	GU	VT-3	IVC	3 3369 PAF 802-18	04/03/80	
	NENT COOLING SY	-							
	CC1116 - RR01	10	3	AA	<b>∀</b> 7-3	AC8	3C369PCC407-12	05/10/00	WORK DONE TO WAS CC 83 96.
	CC1116 - RR02	10	3	RA	VT-3	ACB	3C389PCC407-12	05/09/80	
	CC1118 - RR05	10	3	AA	VT-3	ACS	3C369PCC407-12	05/01/90	
	CC1118 - RR08	10	3	AR	VT-3	ROB	3C369PCC407-12	05/01/90	
	CC1116 - RR07	10	3	AA	VT-3	ACB	3C369PCC407-12	05/01/90	
	CC1118 - RR08	10	3	RR	VT-3	ACB	3C389PCC407-12	05/01/90	
	CC1116 - RR10	10	3	RR	VT-3	RCB	3C369PCC407-12	05/01/90	
	CC1116 - RR11	10	3	AR	VT-3	ACB	3C369PCC407-12	05/01/90	
	CC1116 - RR18	10	3	GU	VT-3	ACE	3C369PCC407-12	05/24/80	
	CC1116 - RR19	10	3	AA	VY-3	ACB	3C360PCC407-12	05/09/80	
	CC1116 - 17R20	10	3	AA	VT-3	ACB	3C369PCC407-12	05/09/50	
	CC1117 - H .5003	10	3	RR	VT-3	H7B	4C369PCC407-13	05/01/90	
	CC1117 - HL1005	10	3	AR	VT-3	ACB	4C389PCC407-13	05/11/90	
	CC1117 - HL5108	10	3	SH	VT-3/VT-4	RCB	4C369PCC407-13	05/09/80	
	CC1117 - RR01	10	3	GU	VT-3	ACB	4C369PCC407-13	05/08/20	
	CC1117 - RR05	10	3	RR	VT-3	ACB	4C369PCC407-13	04/30/90	
	CC1117 - RR06	10	3	AR	VT-3	RCB	4C389PCC407-13	05/01/90	
	CC1117 - RR07	10	3	RA	VT-3	HCB	4C369PCC407-13	05/01/80	
	CC1117 - RR08	10	3	RR	VT-3	RCB	4C389PCC407-13	05/01/80	
	CC1117 - RR09	10	3	RR	VT-3	RCB	4C369PCC407-13	05/01/90	
	CC1117 - RR10	10	3	RA	VT-3	ACB	4C380PCC407-13	05/01/90	
	CC1117 - RR11	10	3	RR	VT-S	RCB	4C369PCC407-15	05/01/80	
	CC1117 - RR13	10	3	RR	VT-3	RCB	4C389PCC407-13	05/10/90	
	CC1117 - RR14	10	3	RR	VT-3	RCB	4C369PCC407-13	05/08/90	
	CC1117 - RR15	10	3	RR	VT-3	RCB	4C389PCC407-13	05/09/90	
	CC1117 - RR16	10	3	RR	VT-3	ACB	4C369PCC407-13	05/09/90	
	CC1117 - RR17	10	3	RR	VT-3	ACB	4C389PCC407-13	05/09/80	
	CC1117 - RR18	10	3	RR	VT-3	RCB	4C369PCC407-13	05/09/90	
ESSENT	TAL COOLING WAT	ER SYS	TEM				400001 00407-10	Caroerec	
	EW1102 - HL5001	30	3	RR	VT-3	MAB	3M388PEW229-19	04/03/80	REWORK TAPE COAT PER RFA 80-0092 WORK TO BE DONE BY WR# EW 87437
	EW1102 - HL5000	30	3	RR	VT-3	MAB	3M389PEW229-19	04/04/20	WORK TO BE DONE BY WAY EW 8/43/.
	EW1108 - HL500	10	3	GU	VT-3	DGB	5D300PEW329-04	04/03/90	
	EW1121 - HL5001		3	GU	VT-3	The second second	3Y361PEW729-07	04/04/20	TIGHTEN LOCK MUT DED DEL SE SALE
REACTO	OR MAKE-UP WATE					2011 1111	31301FEH729-07	04/04/60	WORK TO BE DONE BY WAR EW 87431.
	RM1002 - HL5001		3	GU	V1-3	MAB	3M369PRM263-03	04/04/80	
	- EQUIPMENT						3M3047 NM203-03	0.000	
COMPO	CCX1A	SIEM							
DIFEE			3	EO	VT-3	MAB	N/A	04/03/90	COMP COOLING WATER HX 101A - SPT
DIESEL	GENERATOR FLUI	USYST							
	JCP1A		3		VT-3	DGB	N/A	04/03/90	JACKET WATER CIRC. PUMP 134
	JHX1A		3	EQ	VT-3	DGB	N/A	04/03/90	JACKET WATER HX 134

- SUPPORT TYPE

EQ - Equipment

GU - Guide

RR - Rigid Restraint SH - Spring Hanger

APPENDIX 3-B
PERSONNEL

## **APPENDIX 3-B**

### PERSONNEL

Name	Company	Level
J. T. Graham	HL&P	II
J. F. Halley	HL&P	II
C. A. Murry	HL&P	II
P. Silva	HL&P	II
C. D. Suhler	HL&P	II
G. L. Zink	HL&P	п
A. R. Pennanen	NES	II

Company
HL&P - Houston Lighting & Power Company
NES - Nuclear Energy Services

OWNER'S REPORT FOR INSERVICE INSPECTIONS NIS-1 FORMS

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

1. Owner Houston Lightin	(Name and Address of Owner)  (Name and Address of Owner)
2. Plant South Texas Proj	ect Electric Generating Station; P.O. Box 289, Wadsworth, Texas 77483
	(Name and Address of Plant)
3. Plant Unit 1	4. Owner and Certificate of Authorization (if required) N.A.
5. Commercial Service Dat	e 08/25% 6. National Board Number for Unit N.A.

7. Components Inspected	ASME Code Clas	Piping and Equipment	
C	Manufactures	Manufacturer, or Installer	National

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
RC1123 - HL5011	Ebasco (I)	N.A.	N.A.
RC1123 - HL5012	Ebasco (I)	N.A.	N.A.
RC1125 - HL5005	Ebasco (1)	N.A.	N.A.
RC1125 - HL5010	Ebasco (I)	N.A.	N.A.
RH1201 - HL5002	Ebasco (I)	N.A.	N.A.
RH1201 - HL5009	Ebasco (I)	N.A.	N.A.
RH1201 - HL5010	Ebasco (I)	N.A.	N.A.
RH1201 - RR04	Ebasco (I)	N.A.	N.A.
RH1201 - RR05	Ebasco (I)	N.A.	N.A.
RH1201 - RR06	Ebasco (I)	N.A.	N.A.
RC Pump 101B RPC1B (1R131NPP101B)	Westinghouse (M)	N.A.	29

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 each form.

- 8. Examination Dates 04/24/90 to 05/09/90 9. Inspection Interval from 08/25/88 to 08/25/98
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. (ASME Code Class 1 Component Supports Piping and Equipment) See Section 3.4 and Appendix 3-A of 1RE02 Summary Report for list of examinations performed. The examinations performed this outage and previous outage constitute approximately 20 percent of the required examinations for the current interval.
- 11. Abstract of Conditions Noted.
  No relevant conditions were noted.
- 12. Abstract of Corrective Measures Recommended and Taken.
  No corrective measures were taken or recommended.

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

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

Date 6-21 19 90 Signed Houston Lighting & Power Co. By R. L. Beverly Owner R. L. Beverly Owner R. L. Beverly Owner R. L. Beverly Over R. L. Beverly Owner R. L. Beverly O

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of <u>Texas</u> and employed by <u>Arkwright Mutual Insurance Co.</u> of <u>Norwood, Mass</u> have inspected the components described in this Owner's Report during the period  $\frac{\sqrt{3}-1-\sqrt{30}}{\sqrt{3}-1-\sqrt{30}}$ , and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in his 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, express 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.

Factory Mutual System

Tex 826

Inspector's Signature

B. R. Russell

Factory Mutual System

Tex 826

National Board, State, Province, and Endorsements

Date 7-10- 19 96

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

1. Owner	Houston Lighting & Power Compa	v. Electric Tower	P.O. Box	1700 Houston	Texas 7700
	(Name an	Address of Own	er)		

2	Plant	South Texas Project Electric Generation	g Station: P.O. Ber 289; Wi	adsworth, Texas 77483
			Address of Plant)	

- 3. Plant Unit 1 4. Owner and Certificate of Authorization (if required) N.A.
- 5. Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.
- 7. Components Inspected ASME Code Class 2 Component Supports Piping

Component or Appurtenance	Manufactures or Installer	Manufacturer or Installer Serial No.	National Board No.	
AF1012 - HL5008	Ebesco (D	NA	N.A.	
AF1012 - HT-5009	Ebasco (I)	NA	NA_	
AF1012 - HI 5010	Ebesco (I)	A.K.	NA.	
AF1012 - HL5016	Ebasco (I)	NA	N.A.	
CS1203 - HIL5005	Ebasco (I)	N.A.	N.A.	
FW1031 - HL5001	Ebasco (I)	N.A.	N.A.	
M\$1002 - HI 5002	Ebasco (I)	NA NA	N.A.	
MS1003 - HL5018	Ebesco (1)	· NA	N.A.	
RH1103 - HI-5001	Ebasco (I)	l NA	N.A.	
RH1103 - RR04	Ebasco (I)	N.A.	N.A.	
RH1103 - RR06	Ebasco (I)	L NA L	N.A.	
SIL106 - GU0070	Ebasco (I)	NA NA	N.A.	
SI1106 - HI 5001	Ebasco (I)	NA.	N.A	
SI1106 - HLS012	Ebasco (D)	NA.	N.A.	
SI1106 - HI 5013	Ebasco (I)	NA .	N.A.	
SU106 - RH05	Ebasco (I)	NA NA	N.A.	
SU106 - RH06	Ebasco (I)	l NA	N.A.	
SUUG-RHOS	Ebasco (I)	L NA	N.A.	

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 each form.

ě.

- 8. Examination Dates 03/29/90 to 05/29/90 9. Inspection Interval from 08/25/88 to 05/25/98
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. (ASME Code Class 2 Component Supports - Piping) See Section 3.4 and Appendix 3-A of 1RBM2 Summary Report for list of examinations performed.

The complections performed this outage and provious outage considered approximately 20 percent

of the required examinations for the current laterval.

- 11. Abstract of Conditions Noted. No relevant conditions were noted.
- 12. Abstract of Corrective Measures Recommended and Taken. No corrective measures were taken or recommended.

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of ASME Code, Section XI. Certificate of Authorization No.(if applicable) N.A. Expiration Date

19 90 Signed Houston Lighting & Power Co. By Ye

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspection 1 the State or Province of Texas and employed by Arkwright Mutual Insurance Co. of Norwood, Mass have inspected the components described in this Owner's Report during the period 3-15-90 to 7-12-90 and state has to the best of my knowledge and belief, the Owner has performed expininations and taken co- emeasures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

CERTIFICATE OF INSERVICE INSPECTION

By signing this certificate neither the inspector nor his employer makes any warranty, express or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his emplyer 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.

Commissions

Factory Mutual System

Tex 826

National Board, State, Province, and Endorsements

Inspector's Signature

B. R. Russell

7-12- 19 90

## SUPPLEMENT TO FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS FOR

ASME	Coxte	Class	2 C	ompo	nent	Sup	ports
------	-------	-------	-----	------	------	-----	-------

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

2	F'ant	South Texas Project	Electric Generating	Station: P	O. B	x 289;	Wadsworth.	Texas	77483	
			(Name and A							1

3. Pia	nt Unit _	4.	Owner at	nd i	Certificate of	Authoriza	a (i	f required)	N.A	
	m cm _	 100	CAMPICE WI	110	Certificate Of	Variation Pra		i revuired)		$^{\circ}$

5. Commercial Service Dat	38/25/88	6. National Board	Number for	Unit N.A.
---------------------------	----------	-------------------	------------	-----------

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Insuller Serial No.	National Board No.
SI1106 - RR09	Ebasco (I)	N.A.	
311106 - RR12	Ebasco (I)	N.A.	N.A.
SI1106 - RR54	Ebasco (I)	N.A.	N.A.
SI1106 - RR55	Ebasco (I)	N.A.	N.A.
SI1106 - RR56	Ebasco (I)	N.A.	N.A.
SIi 106 - RR57	Ebasco (I)	N.A.	N.A.
SI1106 - 2R58	Ebasco (1)	N.A.	N.A.
SI1106 - RR59	Ebasco (I)	N.A.	N.A.
S11126 - SH10	Ebasco (I)	N.A.	N.A.

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

- 1. Owner Houston Lighting & Power Com; any: Electric Tower; P.O. Box 1700; Houston, Texas 77001
  (Name and Address of Owner)
- 2. Plant South Texas Project Electric Generating Strtion: P.O. Box 289; Wadsworth, Texas 77483
  (Name and Address of Plant)
- 3. Plant Unit 1 . Owner and Certificate of Authorization (if 12 ired) N.A.
- 5. Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.
- 7. Components Inspected ASME Code Class 3 Component Supports Piping and Equipment

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Poard No.
AF1047 - HL5001	Ebasco (I)	N.A.	N.A.
AF1047 - HL5002	Ebasco (I)	N.A.	N.A.
AF1047 - HL5003	Ebasco (I)	NA.	NA.
AF1047 - HL5004	Ebasco (I)	N.A.	N.A.
AF1047 - HL5005	Ebasco (I)	NA.	NA.
CC1116 - BR01	Ebasco (I)	NA.	N.A.
CC1116 - HR02	Ebasco (I)	NA.	N.A.
CC1116 RF05	Ebasco (I)	N.A.	N.A.
CC1116 - P.RO6	Ebasco (I)	N.A.	N.A.
CC1116 - F4R07	Ebasco (I)	N.A.	N.A.
CC1116 - RR09	Ebasco (I)	N.A.	N.A.
CC1116 - RR10	Ebasco (I)	N.A.	N.A.
CC1116 RR11	Ebasco (I)	N.A.	N.A
CC1115 - RR18	Ebasco (I)	N.A.	N.A.
CC1116 - RR19	Ebasco (I)	N.A.	N.A.
CC1116 - RR20	Ebasco (I)	N.A.	N.A.
CC1117 - HL5003	Ebasco (1)	N.A.	N.A.
CC1117 - HL5005	Ebasco (I)	No.	N.A.

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 each form.

- 8. Examination Dates 03/29/90 to 05/24/90 9. Inspection Interval from 08/25/88 to 08/25/98
- 10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current in rval. (ASME Code Class 3 Component Supports Piping and Equipment)

  See Section 3.4 and Appendix 3-A of 1RE02 Summary Report for list of examinations performed. The examinations performed this outage and previous outage constitute approximately 20 percent of the required examinations for the current Interval.
- 11. Abstract of Conditions Noted.

Nonconforming conditions were noted on thre' (3) pi, ing supports: A) CC1116-RR01 - 1 missing and 1 damaged cotter pin; B) EW1102-HL5001 - tape coat damage; C) EW1121-HL5001 - loose lock nut

- 12. Abstract of Corrective Measures Recommended and Taken.
  - A) CC1116-RR01 cotter pins were replaced in accordance with work request WR# CC 83596.

    B) EW1102-HL5001 -- a work request (WK# EW 87431) was written to repair the tape coat damage.
  - C) EW1121-HL5001 a work request (WR# EW 87437) was written to tighten the lock nut. Evaluation of the nonconforming conditions noted on supports B) and C) above determined that functionality and operability of the supports was not jeopardized.

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of ASME Code, Section 17.

Certificate of Authorization No.(if applicable) N.A.	ation Date	N.A.
Date 6-21 19 90 Signed Hom on Lighting	er Co. By	R. L. Beverly

#### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boile, and Pressure Vessel Inspectors and the State or Province of Texas and employed by Arkwright Mutual Insurance Co. of Norwood Mass have inspected the components described in this Owner's Report during the period to 3-15-10 to 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, express ratimplied, 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.

Alan	Commissions	Factory Mutual System Tex 826
Inspector's Signature B. R. Russell	Nat	ional Board, State, Province, and Endorsements

## SUPPLEMENT TO FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS FOR

### ASME Code Class 3 Component Supports

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

2.	Plant	South Te	exas Project	Electric Gene	rating Station	. P.O.	Box 289;	Wadsworth,	Texas	77483
			145.1915		and Address					

3.	Piant Unit 1	4.	Owner a	nd	Certificate of	Authorization (	if required)	N.A	
	Claim Can		CARIET .	TES.	Columbia of	VARIATION INDIANA	m redence)		$\circ$

5. Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.

Component or Appurtenance	Manufacturer or lastaller	Manufacturer or Installer Serial No.	National Board No.
CC1117 - HL-5006	Ebasco (I)	N.A.	N.A.
CC1117 - RR03	Ebasco (I)	N.A.	N.A.
CC1117 - RR05	Ebasi 20'	N.A.	N.A.
CC1117 - RR06	Ebasco (I)	N.A.	N.A.
CC1117 - RR07	Ebasio (I)	N.A.	N.A.
CC1117 - PR08	Ebasco (I)	N.A.	N.A.
CC1117 - RR09	Ebasco (I)	N.A.	N.A.
CC1117 - RR10	Ebasco (I)	N.A.	N.A.
CC1117 - RR11	Ebasco (I)	N.A.	N.A.
CC1117 - RR13	Ebasan (I)	N.A.	N.A.
CC1117 - RR14	Ebasco (I)	N.A.	N.A.
CC1117 - RR15	Ebasco (I)	N.A.	N.A.
CC1117 - RR16	Ebasco (I)	N.A.	N.A.
CC1117 - RR17	Ebasco (I)	N.A.	N.A.
CC1117 - RR18	Fhasco (I)	N.A.	N.A.
EW1102 - HL5001	Ebasco (I)	N.A.	N.A.
EW1102 - HL5003	Ebasco (I)	N.A.	N.A.
EW1106 - HL5001	Ebasco (I)	N.A	-i.A.
EW1121 - HL5001	Ebasco (I)	N.A.	N.A.

## ORM NIS-1 OWNER'S REPORT POK INSERVICE INSPECTIONS

ASME Code Class 3 Component Supports

(Name and Address of Owner)

CI Electric Generating Station: P.O. Box 289; W. dsworth, Texas 77483
(Name and Address of Plant)

4. Owner and Certificate of Authorization (if required) N.A.

08/25/88 6. National Board Number for Unit N.A.

Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
Fbasco (I)	NA.	N.A.
truthers Wells Corp. (M)	1-76-06-32940-1	14436
Crane Deming (M)	8E1701	N.A.
American Standard (M)	9H0301	33817
		性語言 音樂音樂 拉

## SUPPLEMENT TO FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS FOR

### ASME Code Class 3 Component Supports

1.	Owne	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 289; Wadsworth, Texas 77483							
		(Name and Address of Plant)							

3. Plant Unit 1	4. Owner and Certificate of Authorization (if required)	N.A.
5. Commercial Service Date 08/25/8	8 6. National Board Number for Unit N.A.	

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
RM1002 - HL5001 CCW Heat Exch 1A	Ebasco (I)	N.A.	N.A.
CCX1A (3R201NHX101A)	Struthers Wells Corp. (M)	1-76-06-32940-1	14436
Jkt Wir Circ Pmp 134 JCP1A (3Q151MPX0134)	Crane Deming (M)	8E1701	N.A.
Jki Wir Hi Exch 134 JHX1A (3Q151MHX0134)	American Standard (M)	9H0301	33817
FEER CANADA			

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## SUPPLEMENT TO FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS FOR

## ASME Code Class 3 Component Supports

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 289; Wadsworth, Texas 77483
	(Name and Address of Plant)
3.	Plant Unit 4. Owner and Certificate of Authorization (if required) N.A.
5.	Commercial Service Date 08/25/88 6. National Board Number for Unit N.A.

Component of Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	National Board No.
RM1002 - HL5001 CCW Heat Exch 1A	Ebasco (I)	N.A.	N.A.
CCX1A (3R201NHX101A)	Strothers Wells Corp. (M)	1-76-06-32940-1	14436
Jki Wir Circ Pmp 134 JCP1A (3Q151MPX0134)	Crane Deming (M)	8E1701	N.A.
Jkt Wir Hi Exch 134 JHX1A (3Q151MHX0134)	American Standard (M)	9H0301	33817